The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1706.—Vol. XXXVIII. LONDON, SATURDAY, MAY 2, 1868. {STAMPED .. SIXPENCE, UNSTAMPED--FIVEPENCE

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 1842.)

The Mining Share Market is in a position highly advantageous to buyers, the range of prices being low, which should encourage investments, especially in first-rate dividend mines, and of the most eligible for permanency of dividends a list will be furnished on application of shares select in quality and moderate in price.

WEST GODOLPHIN are recommended as an INVESTMENT. These shares are now at a moderate price, and the prospects of the mine most encouraging. Dividends will be regularly paid, yielding a high percentage on cost. A limited number of shares for sale AT THE LOWEST MARKET PRICE.

BUSINESS in ST. BRIDE'S SLATE QUARRIES (Pembrokeshire) on terms highly advantageous to BUYERS.

Bankers: National Bank of Scotland, 37, Nicholas-lane, E.C.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET, has FOR SALE the following shares, free of commission :—

100 Anglo-Brazil., 15s. 6d	100 Frontino (call paid), 11s. 3d.	10 St John del Rey, £20¾
10 Colquite and Callington United, 32s. 6d.	30 Gawton, £2⅜.	50 South Darren, 31s. 3d
35 Chontales (£5 paid), £2¾.	10 Marke Valley, £6¾.	50 South Grenville, 3s 6d
15 Clifford, £5¾.	New Birch Tor.	25 South Condurrow, 8s.
20 Chlv. Moor, £5 18s 9d	50 New Quebrada, 7s. 6d	2 Wheal Seton, £75¾.
35 Don Pedro, £2 18s 9d	25 North Downs, 28s. 6d.	1 W. Wh. Seton, £210.
20 East Laxey, 3s. 6d.	15 North Crofty, £2½.	20 Wheal Uny, 42s.
50 East Grenville, 37s 6d	50 New Lovell, 21s. 6d.	50 W. Drake Walls, 6s 3d
30 East Russell, 15s.	50 N. Treskerby, 19s. 3d.	2 W. Wh. Frances, £3.0.
25 E. Carn Brea, 25s. 6d.	50 Prince of Wales, 50s.	5 Wh. Mary Ann, £22¼
10 Great Laxey, £17¼.	75 Pestarena, £2 14s. 6d.	5 Wh. Trelawny, £8¼
	50 Redmoor, 2s. 9d.	30 Wheal Grenville, £7.

GUIDE TO INVESTORS.—THE STOCK, SHARE, AND FINANCE REGISTER for April contains a comprehensive review of the Stock and Share Markets; a list of all the dividends paid in March; a comparative estimate of the profits of the several descriptions of shares; a selection of Investments paying 10 to 19 per cent.; and information for intending investors.—6d. per copy, or 5s. annually, post free.

Published by Mr. BAKER LELEAN, at his offices, 11, Royal Exchange, London.

MR. WILLIAM WARD,
STOCK AND SHAREDEALER,
No. 29, THREADNEEDLE STREET, LONDON, E.C.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER, 19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER,
224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

MR. J. B. REYNOLDS, 70 and 71, BISHOPSGATE STREET WITHIN, LONDON, E.C., STOCK AND SHAREDEALER, refers with much pleasure to the improving prospects of Cornish Mines, and anticipates a very favourable future for many, the merits of which are matters almost of certainty. He begs to assure his friends of his constant attention to their interests, and recognises the fact that the interests of the dealer and his customer are really identical. He deprecates, as far as he is concerned, "time bargains," and prefers *bona fide* transactions for cash, not with mere speculators, but investors who buy on the real merits of the undertaking rather than on the chance of market operations. In making these remarks, Mr. REYNOLDS does not in any way intend to reflect on those whose views differ from his own in such matters, but only wishes to save unnecessary correspondence.

Mr. REYNOLDS recommends the purchase of shares in sound tin mines, the working expenses of which are moderate—such as, for instance, WEST WHEAL KITTY or WEST ST. IVES, both these properties being certainly of more than ordinary promise, but the shares in which are low, because of exceptional circumstances.

WANTED TO PURCHASE—

5 Great Wheal Vor.	25 Colquite and Callington United.	10 St. John del Rey.
50 W. Kitty (St. Agnes).	45 Great North Downs.	110 Don Pedro.
5 West Wheal Frances.		300 West St. Ives.
FOR SALE—		50 West St. Ives.
2 Carn Brea.	4 Levant.	10 Colquite and Callington.
20 West Basset.	25 Prosper United.	

Established Eleven Years. Bankers: City Bank.

WEST ST. IVES MINE—CONDUCTED on the COST-BOOK SYSTEM.

Mr. J. B. REYNOLDS, of 70 and 71, Bishopsgate-street Within, London, E.C., is a BUYER of any number of shares in these mines, and is prepared to deal either for cash or account as a BUYER or a SELLER.—May 1, 1868.

COLQUITE AND CALLINGTON UNITED.—This MINE has recently been INSPECTED by another INDEPENDENT AGENT, whose REPORT is even more FAVOURABLE than OTHERS. Mr. REYNOLDS has, by the kindness of a friend, been enabled to supply anyone with a copy GRATIS with whom he has done business in the past, and strongly recommends an immediate purchase of the shares.

Apply to J. B. REYNOLDS, 70 and 71, Bishopsgate-street Within, London, E.C., May 1, 1868.

MESSRS. POWELL AND MOSS, SHAREDEALERS, 78, OLD BROAD STREET, LONDON, E.C., and Mining Exchange, have large transactions in Prince of Wales, North Treskerby, Frontino, North Crofty, Chiverton, Chiverton Moor, and West Chiverton. Parties dealt with at a fair margin on the market price.

References exchanged.
Bankers: City Bank, Finch Lane.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER, 48, THREADNEEDLE STREET, LONDON, E.C.
Business transacted in the British Funds, Railway and other Stocks, Foreign Bonds, &c., on the usual commission, 1¼ per cent. on mining and other shares, above £2; and nt £2 and under 6d. per share.

References given and required.
Bankers: London and Westminster, Lothbury.

MR. EMANUEL BEAZLEY,
STOCK AND SHAREDEALER,
8, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.
Member of the Mining Exchange.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 13 years), has FOR SALE the FOLLOWING SHARES, at nett prices :—

50 Anglo-Braz., 13s. 9d.	50 Gunnislake (Clit.), 30s	5 Rose and Chiverton.
10 Clifford, £5 11s. 3d.	3 Gt. Wh. Vor, £17 15s.	10 Summer Hill, £4¼.
20 Chontales, £2 12s.	20 Gawton, £2 10s.	5 St JohndelRey, £20 8 9
20 Carnarv. Cons., £2 8 9	5 Gt. No. Downs, £4⅛.	30 South Darren, 31s.
50 Colquite & Callington	25 New Lovell, 22s.	50 So. Condurrow, 8s. 9d
30 Don Pedro, £2 4 6 pm.	30 No. Treskerby, 19s.	30 Wh. Grenville, 36s 3d.
1 Devon Gt. Con., £450	20 North Downs, 26s. 9d	50 West Godolphin.
10 East Caradon, £4 2 6	10 North Crofty, £2 12s.	1 Wheal Seton, £75 8 9
30 E. Carn Brea, 25s.	20 Okel Tor, 13s.	50 West St. Ives.
25 East Grenville, 36s. 3d	20 Prince of Wales, 49s.	20 West Wh. Kitty, 10s.
20 E. Gunnislake, 28s. 6d	50 Pestarena, £2 6s. 3d.	5 Wh. Trelawny, £8¼.
5 East Lovell, £8 8s 9d	30 Prosper Unit., 11s. 6d	5 Wh. Kty. (St. Ag.), £8⅛
50 Frontino, 9s 3d (ex call)	50 Port Phillip, £1½.	20 Wheal Crebor, 2s. 6d
20 Gt. Retallack, £2 10s.	25 Rossa Grande, 11s.	10 W. Caradon, £6 16s 9d

MR. GEORGE BUDGE, STOCK AND SHAREDEALER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), has FOR SALE at nett prices :—150 West St. Ives; 100 Lovell Consols, 8s.; 50 Colquite and Callington, 30s. 3d.; 200 Redmoor; 50 Cuddra, 15s.; 70 Crebor, 2s. 3d.; 5 Maes-y-Safn, £27; 150 Great Rhosesmor; 50 West Wheal Kitty, 12s. 6d.; 1 Devon Great Consols, £450; 2 South Caradon, 40S; 10 East Carn Brea, 25s.; 35 Prosper United, 10s. 6d.; 110 South Grenville, 6s. 9d.; 20 East Russell; 50 New Lovell; 25 Wheal Grenville, 38s.; 20 North Downs, 29s.; 5 Wheal Emily Henrietta; 10 North Crofty, £2 12s.; 2 East Basset, £10¾; 5 Great Fortune, £5; 50 East Chiverton; 30 North Retallack; 20 Wheal Kitty (St. Agnes), £2½; 2 Minera; 10 Summer Hill; 100 Worthing; 100 Wheal Ida; 40 Camborne Vean, 10s.; 20 Don Pedro, £2 6s. 6d. prem.; 50 Anglo-Brazilian, 16s. 6d.; 50 Rossa Grande, 13s. 6d.; 100 Anglo-Italian, 15s.; 25 Port Phillip, 31s.; 20 Yudanamutana, £2¼; 60 New Quebrada, 9s.

SPECIAL BUSINESS in Anglo-Italian, Anglo-Brazilian, Rossa Grande, West Wheal Kitty, West St. Ives, Cape Copper, Pendeen.

CORNWALL AND DEVON MINES.—FOREIGN GOLD MINES, &c.
PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, May 1, No. 477, Vol. X., price 6d. each copy, forwarded on application, contains information on the following mines :—

Wheal Trelawny.	North Roskear.	East Carn Brea.
West Great Work.	New Wheal Lovell.	East Wheal Russell.
New Wheal Seton.	East Trumpet.	Don Pedro.
Prince of Wales.	Clifford Amalgamated.	

THE LONDON DAILY RECORD—STOCK AND SHARE LIST—STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 1s.; by post, £2 5s.; monthly subscription—by post, 4s.; single copy, 1d.; by post, 2d.

PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to *bona fide* investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON
(three doors only from Hercules-passage, entrance to the Stock Exchange),
Twenty-three years' experience.
(Two in Cornwall and Twenty-one in London.)
Bankers: The Alliance Bank, and the Union Bank of London.
References given and required (when necessary) in all the principal towns of the United Kingdom.

MR. EDWARD COOKE,
FOREIGN AND BRITISH MINING SHAREDEALER,
76, OLD BROAD STREET, LONDON, E.C.
SHARES in all the Gold Mines, and also those in British Mines, DEALT IN, at close market prices, either for cash or fortnightly settlement.
Satisfactory references given in any town in the United Kingdom.
Bankers: Alliance Bank.
A daily list of prices sent free on application.

MR. W. H. CUELL,
(late of the firm of WATSON and CUELL),
Has REMOVED TO 42, CORNHILL, LONDON, E.C.

JOHN WILLIAM HUTCHINSON has instructions to SELL the following shares at nett prices :—

1 Botallack, £150.	10 East Lovell, £8¼.	25 No. Treskerby, 18s 3d
25 Chontales, £2 7s. 6d.	20 E. Carn Brea, 23s. 6d.	10 No. Crofty, £2 11s. 3d
10 Chiverton, £2 16s. 3d.	25 East Russell, 12s.	25 Prosper Unit., 12s. 9d
25 Drake Walls, 10s.	10 Gawton, £2⅜.	20 Wh. Grenville, 36s 6d.
10 E. Caradon, £3 18s 9d	20 Gt. Retallack, £2¾.	1 Wheal Seton, £77.

Parties desirous of disposing or exchanging mining shares are invited to apply as above. He is in a position to offer them every advantage in so doing.
FOR SPECIAL SALE—25 West Godolphin, 22s. each, nett.
OFFICES—31, THROGMORTON STREET, LONDON, E.C.

MR. THOMAS THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C.

WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN.

MR. Y. CHRISTIAN, ENGLISH AND FOREIGN STOCK AND SHAREDEALER, 6, BOND COURT, MANSION HOUSE, E.C.
MR. Y. CHRISTIAN'S "FINANCIAL GAZETTE" should be consulted with a view to the safe employment of capital. It contains Original Articles, and a Comprehensive Review of the Stock and Share Markets. Also, particulars of the best paying investments of the day, including Banks, Railways, Insurance, Mines, Docks, Gas Companies, and a Selection of Investments paying 10 to 20 per cent. on outlay. To trustees, shareholders, and intending investors it will be found a very valuable publication, and should be consulted by those who have an interest in the state of the money market.

Mr. CHRISTIAN embraces the present opportunity of urging his clients and the investing public generally to obtain an interest in the NORTH LEVANT MINING COMPANY at once. The shares are remarkably cheap, and the present time offers a good opportunity for realising immense profits, whether the shares are bought as an investment or to sell again.
6, Bond-court, Mansion House, London, E.C.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C.
T. R. can recommend three mines safe for a great rise within the next three months. Money advanced to any extent upon good mining shares.
Bankers: Bank of England.

MR G. D. SANDY, STOCK AND SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C., TRANSACTS BUSINESS in EVERY DESCRIPTION of STOCK EXCHANGE SECURITIES, MINING and FINANCIAL ENTERPRISES, at close market prices.

A reference to my advertisement in 1863 will show that I strongly advocated the purchase of EAST LOVELL at £3 per share. These shares rose steadily in value from £3 to £23 within 12 months, and have since yielded large dividends.

An adjoining mine, on the same lodes, is now occupying a prominent position in the Mining Share Market, and at this moment possesses even better prospects than those of EAST LOVELL at a corresponding period of development.

The property in question Mr. S. has had inspected by several competent agents, whose reports entirely confirm his own judgment.
Correct Daily Price List can be had on application.
Money advanced to any amount on legitimate stocks and shares.
References exchanged.

MATTHEW GREENE, STOCK AND SHAREDEALER,
1, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.
The shares in the following mines are worth buying at the present prices :—Tamar Silver-Lead, Montgomeryshire Lead and Barytes, New Clifford.
Full particulars of the above on application.
Bankers—Metropolitan Bank, Cornhill, London.
Tweedy, Williams, and Co., Redruth, Cornwall.

JAMES SCOTT AND CO., STOCK AND SHAREDEALERS,
1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.
J. S. and Co. are SELLERS, for cash or the account, of shares in any of the undermentioned mines, at quoted prices, nett :—

Anglo-Brazilian, 15s.	Great Wheal Vor, £18 5s.	Tincroft, £15 10s.
Bedford Consols, 17s. 6d.	Great Laxey, £17	West Frances, £30.
Carn Brea, £18.	Gt. North Downs, £3 12 6	West Chiverton, £64 15s.
Chontales, £2 12s. 6d.	Lucy Phillips, £5 17s. 6d.	West Caradon, £6 17s. 6d
Chiverton Moor, £6.	Marke Valley, £6 17s. 6d.	West Drake Walls, 9s 9d.
Chiverton Valley, £4 10s.	North Downs, £1 8s. 9d.	W. Prince of Wales, 11s.
Clifford Amal., £5 17s. 6d.	North Treskerby, £1 1s. 3	West Wheal Seton, £210.
Drake Walls, 10s. 6d.	North Crofty, £2 11s. 3d.	Wheal Basset, £67.
Don Pedro, £3 0s. 3d.	Okel Tor, 16s.	Wheal Buller, £10 10s.
E. Carn Brea (call paid), £1 15s.	Pestarena, £2 12s. 6d.	Wheal Grenville, £1 17 6
	Providence, £28.	Wh. Chiverton, £2 17s 6d
East Gunnislake, £2½.	Port Phillip, £1½ (ex div.)	Wh. Mary Ann, £22 10s.
East Russell, £1 (call pd.)	Prosper United, 16s.	Wheal Seton, £78 10s.
East Caradon, £4 2s. 6d.	Prince of Wales, £2 10s 6	Wheal Kitty (St. Agnes), £2 12s. 6d.
East Lovell, £8 10s.	Rossa Grande, 14s. 9d.	
Frontino, 12s 6d (call pd.)	South Darren, £1 12s. 6d.	Wh. Trelawny, £8 7s. 6d.
Gawton, £3.	St. John del Rey, £20 5s.	Wheal Uny, £2 1s. 3d,
Great South Tolgus, 10s.	South Frances, £20 10s.	Yudanamutana, £2 2s 6d

Money advanced on marketable mine shares at 5 per cent. per annum.
Buyers can have transfers registered prior to payment, if desired, on giving respectable references.
J. S. and Co. having in their employ several of the most experienced and trustworthy mine agents in the United Kingdom, who periodically inspect on their behalf all the *bona fide* mines in Devon, Cornwall, and Wales, are enable to accord to their friends and clients reliable advice as to the present and future prospects of mines they deem worthy the attention of investors.
References will be given to the Alliance Bank and the Bank of England.

MR. EDWARD BREWIS, PALMERSTON BUILDINGS, 34, OLD BROAD STREET, LONDON, E.C., can recommend for a steady rise and safe investment a LEAD MINE of great promise, situate in the richest district of Cornwall. Particulars on application.
SPECIAL BUSINESS in West St. Ives, West Godolphin, Lucy Phillips, Great Rhosesmor, Chontales, North Treskerby, Harwood, and Glan Alun at lowest market prices to BUYERS.

MR. CHARLES THOMAS,
MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,
3, GREAT ST. HELEN'S, LONDON, E.C.

Second Edition, price One Shilling; post-free, fourteen stamps,
MINING FIELDS OF THE WEST:
A PRACTICAL EXPOSITION OF THE
PRINCIPAL MINES and MINING DISTRICTS of CORNWALL and DEVON.
Published by CHARLES THOMAS,
At No. 3, Great St. Helen's, London, E.C.

MESSRS. LANE AND GIBBS, 2, ROYAL EXCHANGE, LONDON, E.C. (Members of the Mining Exchange), STOCK AND SHAREDEALERS, transact business in all kinds of securities at closest nett prices for cash or account.
SPECIAL BUSINESS in East Caradon, Snaefell, Great Laxey, and Minera shares, for cash, or the fortnightly settlement.
Daily price list on application.
Bankers: London and County Bank.

MR. HENRY MANSELL,
STOCK AND SHAREDEALER,
No. 44, THREADNEEDLE STREET, LONDON, E.C.
References Exchanged.—Member of the Mining Exchange.
Bankers: London Joint-Stock Bank.

GRANVILLE SHARP AND COMPANY,
STOCK AND SHAREDEALERS, 32, POULTRY, LONDON, E.C.
Are in a position to BUY and SELL SHARES in the FOLLOWING MINES, at the closest possible market prices of the day, nett :—

West Wh Seton, £267½	West Chiverton, £64¾.	Wheal Seton, £87½.
Chiverton Moor, £6.	Chiverton, £2⅝.	Chiverton Valley.
Wh. Mary Ann, £21¼.	Trumpet Consols, £12.	Kitty (St. Agnes), £2¼
West Wheal Frances.	South Frances, £20¼.	Great Laxey, £16¼.
Lovell Consols.	West Wh. Kitty, 12s 6d	New Lovell, 17s. 6d.
Don Pedro.	Chontales.	St. John del Rey.

WANTED TO PURCHASE, THE FOLLOWING SHARES :—
50 Nangiles. 200 East Chiverton. 25 Wheal Emma, 7s.
Sellers must state number and lowest price for cash, all calls paid-up.
FOR SALE,—50 Rossa Grande, 14s.; 50 Indian Carrying (35s. paid), 10s.
Bankers: London and Westminster, Lothbury, E.C.] [Established 1852.

NOTICE TO SHAREHOLDERS
IN THE
WHEAL SETON MINE.
A special INSPECTION of this MINE, containing a FULL and RELIABLE REPORT of the PRESENT and FUTURE PROSPECTS, will be forwarded to any shareholder upon receipt of 5s. in postage stamps. Every shareholder should know the real position of this property, and not be frightened out of their shares.
GRANVILLE SHARP AND CO., SHAREDEALERS,
32, POULTRY, LONDON, E.C.

BARTLETT AND CHAPMAN, STOCK AND SHAREDEALERS, 2, BUCKLERSBURY, LONDON, E.C.
Business transacted in every description of securities at closest market prices, free of commission.
We recommend the immediate purchase of Lovell Consols, Great South Chiverton, East Chiverton, Great Laxey, and Tamar Valley shares. Particulars and price on application.
Our "Investment Circular and Financial Record," forwarded post free on application. Bankers: London and Westminster Bank.

MR. JAMES HUME, STOCK AND SHAREDEALER,
74, OLD BROAD STREET, LONDON, and MINING EXCHANGE.
Every description of shares BOUGHT or SOLD for cash or account.
Shares continued for responsible parties, from account to account, at market prices.
WHEAL MARY FLORENCE (Limited).—This mine, from its position, and by force of discoveries, is likely to create much sensation. Its success being already assured, full particulars may be had by applying to Mr. J. HUME.

Established Fourteen Years.
MESSRS. WARD AND JACKMAN,
SHAREDEALERS,
CUSHION COURT, OLD BROAD STREET, CITY, E.C.
Members of the Mining Exchange, London.
Messrs. WARD and JACKMAN will forward a correct list of closing prices and statistical information GRATUITOUSLY on application.
May 1. Bankers: London and Westminster, Lothbury.

CHONTALES GOLD COMPANY.—FULL PARTICULARS of the DIFFERENT CLASSES of SHARES can be obtained on application to Mr. J. H. MURCHISON, No. 8, Austinfriars, E.C.

MR. J. N. MAUGHAN, STOCK AND SHAREBROKER
(Member of the Stock Exchange),
No. 2, COLLINGWOOD STREET, NEWCASTLE-ON-TYNE,
Transacts business in Railways, Funds, and every description of Mines.
Bankers: Messrs. Lambton and Co.

MR. D. STICKLAND, M.E., having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.
Mining, Railway, and other Shares bought, sold, or exchanged. Shares for sale in mines and quarries that will pay 15 to 20 per cent. per annum.
Offices, 5, Finsbury-street, London, E.C.

MESSRS. BEOR AND KENRICK,
MINING ENGINEERS,
EXCHANGE BUILDINGS, MANCHESTER.
Messrs. BEOR and KENRICK undertake the purchase of mining property of every description, the survey of estates and mines at home and abroad; collieries and mineral property carefully inspected and reported upon; contracts entered into for mining plant, &c.

MESSRS. THOMAS BONNER AND CO.,
MINING AGENTS, MINERAL SURVEYORS, AND SHAREBROKERS,
LLOYD STREET, COOPER STREET, MANCHESTER.
Messrs. THOMAS BONNER and Co. having been engaged in mining pursuits and the management of metalliferous mines for upwards of twenty years, their experience enables them to give their clients the soundest advice. They are always in a position to negociate for the buying and selling of mineral properties in all parts of the world; and they also undertake the floating of companies for working such properties, if the *bona fide* prospectus, after careful investigation, meets their approval.
T. B. and Co. are also dealers in every kind of mining shares, and having an extensive connection are generally able to deal in shares difficult of sale in the open market, and invite transactions from holders of this kind of stock.
N.B.—Money advanced on mineral properties and mining shares.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER, AND FINANCIAL AGENT, No. 30, GREAT ST. HELEN'S, LONDON, E.C., has SPECIAL BUSINESS, as a BUYER or SELLER of SHARES, in West Godolphin, Snaefell, Uny, Don Pedro, and Summer Hill.
E. J. BARTLETT is always in a position to deal at the closest market quotations, and having agents in the mining districts, can advise and direct intending investors and others as to the merits of any mining property.
Shares in Banks, Railways, Hotels, and Finance Companies, bought, sold, or exchanged.
. Buyers or sellers of West Godolphin shares should address the above for information, &c.

MR. J. S. MERRY,
ASSAYER AND ANALYTICAL CHEMIST,
SWANSEA.

MR. JAMES STOCKER,
PALMERSTON BUILDINGS, OLD BROAD STREET, and MINING EXCHANGE, LONDON, E.C., STOCK AND SHAREDEALER in all kinds of Stock Exchange and Mining Securities.
Established Twenty Years.
Money promptly advanced on shares.
Bankers: London and Westminster, Lothbury

Original Correspondence.

LECTURES AT THE ROYAL SCHOOL OF MINES.

MR. N. ENNOR'S REMARKS ON MR. W. SMYTH'S LECTURES FOR IMPROVING MINING SCIENCE.

SIR,—You would do good service to miners generally if you were to reprint the whole of Mr. W. Smyth's series of lectures as a Supplement to an early number of the Journal. I know Mr. Smyth to be a man of experience, and his lectures collected together would be valuable references even to practical men. All mining men must be aware that Mr. W. Smyth, having been England's authorised instructor for a number of years, has had such facilities for inspecting, taking notes, and making general observations as no other man in the world has had—a shrewd man with such opportunities cannot be other than a good miner's guide. I only regret his not having been placed in a different position to that he now occupies, where he might get the right class of men and pupils about him to discover and bring to light the long, long-hidden secrets of how minerals are formed and deposited in the earth. I do not for a moment wish to insinuate that the class he has about him should not be "schooled," but what I contend is that the school should be placed more in a mining district, where the pupils could devote a portion of their time to actual practice, and the most studious youths from the mines should be taken in to study for a month, and put out to work for a month—thus they would imbibe general ideas in their youth, and many would continue watching the freaks and laws of Nature. All creation is working on its own natural laws, and it is the discovery of these laws that daily enlightens man.

As I before stated, Mr. Smyth's lectures are interesting and useful, but I am sure he will not attempt to contradict me when I say that there are many lads in Cornwall who have learnt from actual practice a large portion of what is contained in his lectures, and in many cases far more than he attempts to show in them; but having given a fair series of lectures as to the manner a mine should be carried out, I now hope at his leisure he will divulge to the public all the laws and freaks of Nature he has discovered, together with his opinion as to the way these natural laws act to produce the different ores. That is, in addition to the useful information conveyed in your notices of his lectures, the talented gentleman, at his leisure, should prepare, for publication in the *Mining Journal*, a *resume* of all the chief features of his experienced observations—the results of his experience at home and abroad; this would be information of the greatest value to us Practical miners. England and English miners expect something interesting and *instructive* from such talented men. Without this, how can the public have much confidence in the pupils that will be sent out of the school? It is to redeem the credit of mining that I ask our talented men, and more particularly those selected to instruct the rising generation, to put their shoulders to the wheel, and use their utmost exertions, by combining practice with theory, to fathom if only a few of Nature's laws, so as to enable the miner to hold the staff in his own hand, and maintain the million.

It is ridiculous to read many of the agents' weekly reports: they pretend to show a large number of good points all to come off shortly, but what are the good points? The only natural law they give to bear out their reports is that the water is increasing and the ground is highly mineralised; they never tell you with what it is mineralised, and for a good reason—nine-tenths of them do not know. The majority of those who give these flaming reports do not even know what a stone of yellow sulphuret of copper is composed of. Mr. Smyth knows, and doubtless most of his pupils know it from theory; but the grand secret to learn is the law they form under, particularly as it is well-known that no chemist, however able, has yet discovered it, so as to enable him to produce a stone of *ore*, of the same colour, with the same crystals as Nature has produced it, even if they mixed the same substances in the same proportions as found in the stone, whether it be a stone of yellow sulphuret of copper or one of lead even.

To give the practical world an opportunity of bringing forward their knowledge of this subject, I would ask—

1.—What formed the gases, how many were original, and were they more than three?

2.—What is there to be found in creation that does not contain a portion of one or more of the same three gases?

3.—What formed the earth and all the rocks?

4.—In what age of the world did carbon appear in quantity; and is there any trace of life existing before carbon appeared in quantity?

5.—In what that does not contain carbon can life be traced?

6.—What is life, and who will argue that there is a single thing in creation that does not live and die (not omitting the adamantine rocks)?

7.—Are rocks the same now as when first formed, being no more in bulk or weight, and containing all the same substances, with no less or more layers?

8.—What is *electricity:* is it life, or are electricity and life two distinct things?

9.—What is there in creation that has not life, and works under its own natural law?

10.—Whence came the substances to form what are called secondary formations?—[I cannot receive as an answer to this the old and trumped up theory, that these layers were formed from decomposition, washed down from the hills, as many of the so-termed secondary layers are to be seen in the hills, and containing shells—layers that were evidently formed before the flood.]

11.—What caused the flood, or what is commonly termed the drowning of the world? Was it rain, or did the globe upset its balance in consequence of some *planet* coming too near, and by its strong magnetic attraction cause it to make an instantaneous turn from the meridian to the poles?—[I am open to confess I have no belief in the world having been drowned by rain alone, because if that had been the case the waters would have risen very gradually, and the low levels, such as valleys and long tidal rivers, would have been filled up in three hours, so as to prevent *tin* falling down on the bottom rock. I am sure Mr. Warington Smyth will agree with me that all the stream tin of Cornwall would have been continually going off in floors in the gravel as the waters rose; but that is not the case, as the tin is almost always down on or near the bottom rocks. When I view the effect the flood had on the earth's surface I am led to believe it must have been caused by the sudden upsetting of the globe, when the water, to find its balance, would have passed over the globe in all probability miles high: with this tremendous force, it swept off all the soft rocks, forming valleys, lakes, and tidal rivers, the harder rocks remaining as mountains. *Then* we have the evidence of tropical animals found at the poles, with tropical food in them undigested. How came they there in that state but from an instantaneous movement? I believe the proper interpretation of the portion of the 11th verse of the 7th chapter of Genesis—"The same day were all the fountains of the great deep broken up"—is that *the sea broke suddenly over the land*, not, as many suppose, the water came up out of the earth; had it done so it would have had a less tendency to pull the hills down than the rain, and would not have scooped out valleys. With this great convulsion, it is possible that many portions of the earth might not have been deluged.]

12.—Where were the secondary rocks formed? Have we not endless evidence showing they were formed under the sea, nearly every hill containing shells? But I do not believe these layers ever show any remains of man: man did not, nor could, exist before the carboniferous rocks were formed.—[Who will argue that carboniferous rocks were not formed under the sea? Scripture and tradition tell us that shortly after the world was formed man was placed on it: in that case all must admit man was first placed on *primitive* rocks; he could never have seen any secondary rocks with shells in them, neither had he any coals, these layers whilst he lived were forming under the sea, until the deluge. Then, the first race of man was passed on the primitive rocks, which are now under the sea. If this be so, they are not to be found until the same thing occurs again, when it is not unlikely the fossils of man may also be found mixed in the secondary layers now forming. What a treat that would be for useless, fossil hunting geologists!]

13.—What is carbon? Is it a fourth gas, or was it produced from the three gases previously mentioned?—[The sea is said to contain portions of all substances, but it contains only a small portion of carbon; in that case it must be liberated, and returned to its own original element.]

I must confess I am not at all sanguine that man existed on the earth before the secondary rocks were formed and carbon made its appearance: I do not see how he could exist. Take carbon from the world, and what would exist? All practical miners know that primitive rocks contain but a small portion of carbon; they show no traces of life or vegetation.

14.—Does a continual fire exist in the earth?—[This, to me, is not necessary to argue in the present age, but I leave it an open question, hoping our friends will be candid, and give a free opinion on this interesting subject, with their views as to the way in which it aids mineral formation. I contend that no satisfactory proof has yet been given that heat does increase as man descends into the earth, the temperature never yet having been taken except in strong mineral veins, or in coal formations, and the gases there produced by large mineral deposits have not been sufficiently tested to show whether they produce the slight increase in temperature found. We must bear in mind that there is little or no circulating air current where the apparent increase of temperature is found. I know many mines that cool as they deepen. I should much like my learned friends to give their views strongly on the subject, when I shall be quite willing and ready to sanction all I can believe, although in all my experience I have ever kept a watchful eye on Nature, searching for proof, but not finding any trace to warrant such a theory as the simultaneous increase of heat with depth.]

I have observed how fertile the imaginations of even our professors are in getting up sections of the earth's crust, showing the *lava* oozing out and forming every hill, but they all omit to show the known laws that must be daily working in the veins throughout every portion of the globe, causing one portion of the land to sink, and another to rise. I have myself taken pains to make working sections showing these "moves." I am also prepared with undeniable proofs to bear out their accuracy. N. ENNOR.

[In my next I shall put a series of mining questions (not omitting the formations of metallic substances), which, with the questions contained in the foregoing letter, I am anxious to have answered by Mr. Smyth, not for my own satisfaction, but for the benefit of all practical miners.—N. E.]

COAL-CUTTING MACHINERY, AND THE PATENT LAW.

SIR,—I find it very difficult to understand the drift of your correspondent, "Inventor," in his discursive letter, which appears in the Journal of last week. I do not recollect that anything transpired during the progress of the case to which he refers that will bear the construction which he puts upon it; at all events, the Court gave no decision of the kind. I am very sorry he does not append his name to the communication, because if he had done so the value of his opinions might have been better appreciated. The chief burden of his complaint appears to be against the Patent Law—that it operates prejudicially upon the interests of the community, by its obstructing the path of the great mechanical genius of the day, filling the avenues to fame by an inferior crowd of inventors, who can never hope to cross the thresholds of the Temple. He calls attention to the circumstance that three patents were applied for on one day (April 12) by parties who are well known as previous applicants for protection for the same class of machinery; and, so far as I can understand his meaning, he argues that the really competent inventors are thus elbowed out of the field. On this singular view of the case a very natural enquiry arises—How does it happen that the superior men have so long remained out of sight, leaving the ground to be so unprofitably occupied by the incompetent? This is an odd foundation to rest a case upon for the abolition of the Patent Law, and constrains one to feel that, however bountifully Providence may have blessed him with other virtues, he does not possess the gift of modesty.

I am not competent to follow "Inventor" into the science of chemistry, or Mr. Oliver Byrne's "Dual Arithmetic;" nor do I see that they are material to the question at issue. But when he descends to the business of coal-cutting by machinery, and declares that "even those most infatuated with the Patent Laws will admit that not one of the inventions protected is of practical utility, although each is obstructive to other inventors," I venture to express the opinion that he knows very little of the subject. There are two compressed air-machines in operation in this neighbourhood working satisfactorily, both made under the West Ardsley Company's patents—one at the pits of Messrs. Pope and Pearson, at Normanton, on the straight-action principle, and the other at the pits of the West Yorkshire Company, at West Ardsley, on the pick principle. I have not the details of the work done by the Normanton machine before me, but that at West Ardsley has for several months past performed its service of cutting upwards of 100 tons of coal daily, in a seam which is a few inches more than 3 ft. in thickness; and the same machine, with some recent improvements, has, on a trial made a few days ago, cut at the rate of more than 200 tons per day. The results already attained are (and there are some I shall not enumerate)—

1.—That the coal is got at a reduced cost to the company.

2.—There is less coal broken into small, and, consequently, a better selling average quality.

3.—Easier work and higher wages to the miner.

4.—Less danger to life, and greater security to the property of the company.

5.—Better ventilation, with an improved atmosphere, rendering the occupation of a collier less unhealthy.

Now, if these advantages, or any of them, have been accomplished there is neither justice nor reason in the assertion of "Inventor" *that there is not one machine protected by a patent which is of public utility*, the machines alluded to being protected by several patents.

Should your correspondent desire to test the correctness of these statements he may come and controvert them if he can, and for which he shall have every facility. WILLIAM FIRTH.

Burley Wood, near Leeds, April 28.

STEEL FROM PIG-IRON.

SIR,—The statements made by me in the *Mining Journal* of April 18 have produced a response from a respected and well-known pioneer, Mr. R. Mushet, and also some editorial remarks, severe, yet much to the point, although from want of correct information a little apart from the truth. Mr. Mushet's remarks I accept as correct; he and his late father have been long known and acknowledged authorities on such productions. His great experience will probably bear out the fact that steel unique and steel suitable for thousands of purposes in our arts and manufactures has and will be made direct from pig-iron. Having no desire to detract from the merits of the steel produced by Mr. J. P. Smith, C.E., I hail with satisfaction the success he has so far achieved. But while witnessing the advance he has made on the same road of research as I have toiled along during the past 10 years, I am not prepared quietly to allow him to come up alongside and claim the road for himself.

As to your remarks about myself, permit this explanation. Before Messrs. Smith bought Gartcosh Works they had the use of Gartness Works for three months, during which period I conducted to their satisfaction experiments which produced satisfactory results connected with steel-making. Gartcosh Works being at this time in the market, it was bought for the purpose of producing iron and steel, which, while I continued to superintend, was carried on profitably, and also successfully. If there was any want of success the only cause I could ascribe to such was a want of perseverance in this new and profitable manufacture. In all such enterprises much expenditure must be incurred, but in the conducting of any engagements I have been connected with no direct loss has been incurred through me. I forward per rail some samples for your inspection—two pieces direct from the puddling furnace; also some of the same material in sheet and cast-steel; these have been manufactured here to-day.

Coatbridge Tin-Plate Works, April 29. ROBERT MILLER.

RENEWED ACTIVITY IN MINING.

SIR,—After so great a depression in the mining interest during the last two years, things at last appear to assume a brighter appearance. The prospects of the crops throughout the agricultural districts, so far, was never surpassed, and this not only applies to Great Britain, but throughout Europe. A cheaper loaf not only enables the labourer to speculate on tribute, but induces others to speculate a little of their good fortune, which frequently turns to a still better account. The fishery in Cornwall during this spring has been unusually successful, as much as 170 tons of mackarel per day having been sent from Penzance alone. The carriage per rail has amounted to 1000*l.* some days, and this for the last three weeks, or more—a circumstance, it is said, unprecedented. Tin ore has advanced from 45*l.* per ton to 59*l.* or 60*l.*, and copper in proportion. During the extreme low price of these metals about 100 mines suspended operations, which caused a vast amount of distress in Cornwall. It is true that many of these mines, after paying good dividends for many years (and some mines in Cornwall paid almost fabulous profits), became unprofitable to work, except at a very high standard for tin and copper; and this applies to mines abroad as well as in Cornwall.

Old mines do not pay to re-open, with few exceptions; but the great profits hitherto made out of mines have been from new discoveries. No doubt there are many good mines yet to be discovered in Cornwall—from parallel lodes, which abound in some districts. This applies particularly to the lands between Camborne and Penzance, and still more particularly from Marazion to Hayle, where a vast number of unexplored lodes exist. The few mines worked in this district were of the richest description, and though large sums of money have been lost by the re-opening of very deep mines, not one of them have been sufficiently explored in depth; the royalty, or dues, have been reduced, materials very cheap, and metals advancing.

April 28. A WELL-WISHER.

THE MINERAL WEALTH OF CORNWALL.

SIR,—In last week's Journal it is stated in connection with Emily Henrietta that the discovery made therein "shows the unfounded nature of the notion which has gone abroad that West Cornwall is exhausted." Truly it does, and nothing can be more contrary to fact than that either West or East Cornwall is exhausted, and the sooner those who are interested in Cornish mining who may have imbibed that notion put themselves right in the matter the better, which may be easily done by consulting the facts connected with the subject.

The unwrought ground in Cornwall is of such magnitude that the wrought ground is a mere cypher compared to it, and as there are no just reasons whatever for judging the immense quantity of unwrought ground would not prove equally productive to that which has been already wrought, the conclusion that must follow is, notwithstanding the immense quantities of minerals drawn from the county already, that the doors are scarcely opened to the immense storehouses of mineral wealth that remains for the present and future generations.

Wenford, Bodmin, Cornwall, April 29. GEORGE RICKARD.

MINING INVESTMENT, AS IT WAS AND AS IT IS.

SIR,—In my last letter I called attention to the state of the mining interest, as it was and as it is now; and endeavoured to show that there are peculiarities connected with it altogether different from any which appeared in its past history. I ventured, also, to suggest to you the importance of giving to these circumstances immediate consideration and discussion, and of seeking such legislative redress as may be attainable. I pointed out to you the injuious departure, throughout Cornwall and Devon, in the working of the Cost-Book System from its original constitution,—a departure so wide as to make the present an entirely new system of procedure. I did not exaggerate, but on the contrary, in order to avoid the charge of exaggeration, I underrated the bad consequences of the change. In fact, the recently-developed features of the system of forming public companies which has sprung up under the Limited Liability Act of 1862 have been impressed upon the new Cost-Book System. Properties are bought at a price which from the first is an incubus upon the undertaking, and the very machinery created by the law constrains this. Promoters, directors, solicitors, counsel, &c., must be paid, and ultimately it may be that liquidators and courts for winding-up have to be paid, by the funds of the company.

The contrast between this cumbrous scheme of operations, and the simplicity and fairness of the old cost-book is as complete as the present usage is disadvantageous and dangerous. Of old all was intelligible, straightforward, and equitable. Every man knew his position, both present and prospective. If he desired to retire from the enterprise he did so by an easy and equitable method, canonised, as it were, by long and approved usage in the mining districts of the West of England. Shares were not run up and down by market rigging, but men worked until properties were developed. It is true that sometimes there was loss, because disappointment occurred in the lodes, or accidents supervened, or both happened; but inasmuch as no companies were then formed for the mere sake of forming them in the interest of attorneys, promoters, vendors, lessees, &c., there was comparatively little loss, and the proportion of successful companies, as compared with the present time, was great. The old Cost-Book System achieved wonders, and so has the new,—the former of success, the latter of disgrace and ruin. It is scarcely necessary on this occasion to go into details, as I have on other occasions proved, by irrefragible facts, when addressing you on other subjects, that under the good old Cornish system many mines have paid dividends to a vast amount, and attained to a world-wide fame. Now, it is a painful fact that not only mines worked upon the principle of the Limited Liability Act, but upon that of the cost-book—or rather *quasi* cost-book—have since 1862 gone into the courts for the process of winding-up. Some have completed that sad process, but many are there still, and no one can tell when they are likely to come out, or how extensive the loss and waste may be attendant upon the proceedings by which their dissolution is effected.

The proofs of this statement rest upon the returns made to Parliament in virtue of an order made by the House of Commons, May 11, 1866. On July 6 those returns were ordered to be printed, and after a tedious and wearisome time of expectation they came forth to the public; for it takes as long to publish a Government return of a few pages as to print 10,000 columns of the *Times* newspaper. The returns, unfortunately, do not fully unfold the true state of the case. Government documents never do, and never will, until the public insists upon a *bona fide* publicity of whatever it concerns it to know. The persons who frame the orders do so in terms so loose and general, that those who make the returns are left nearly entirely to themselves as to what they report. In almost all cases where reports are ordered by "the House," it is someone's interest to hide the truth. This is done by evading statements, by misstatements, by mistakes in figures—accidentally on purpose; and by other little contrivances, well known in petty official life. So that what the public want is really withheld, and great parade is made of particulars of no value, or of little relevance and trivial importance.

It is not possible to deny that, whether in the Stannaries or in the Court of Chancery, if a company goes into liquidation years are consumed in the process. In truth, however full a man's information may be concerning a company when it goes into court, he soon loses all knowledge of it. The lawyers and liquidators, who are interested in keeping it there as long as they can, annul what is done, or the fact that very little is done. The grand want of the times, where mining matters are concerned, is the conformity of the law to the wants of the community. The cry of cheap and speedy justice, however applicable elsewhere, is here pre-eminently so. We want simplicity, expedition, publicity. The Courts should be compelled by Act of Parliament to make periodical reports, embracing all the information that litigants can require; setting forth the costs incurred, the prospective requirements, and the entire condition of the company. I am quite sure, Mr. Editor, that nothing of the kind can be secured but by putting great pressure upon the Government, and that until it is secured, and until there be a return to the original simple and equitable plans, mining will not assume the high place in British enterprise which properly belongs to it; and I feel equally confident that if the formation of companies and the action of the law are alike legitimate and just, that no industry known to Great Britain will exercise a more important influence upon her destinies than that to which your able Journal is devoted. That the present state of the law is prejudicial to this form of enterprise is an opinion now gaining ground in the City and throughout the country. In the course of last autumn I ventured, without dwelling upon the subject, to bring the matter *en passant* to your notice; since then the opinion I expressed has made great way, and is now boldly avowed by very

unlikely persons, and in very unexpected quarters. As an illustration of this, the *Times* of the 15th inst. may be quoted. The City Article of that paper had then the following paragraph :—"The daily lessons still furnished in the Court of Chancery of the perils which are almost inseparable from every joint-stock concern, *under our existing legal system*, must effectually prevent any revival of the spirit of adventure in that form." The evil and its consequences are here fairly stated. The italics are my own : in the original the sentence is not so printed, but I thought it judicious to mark that clause of the sentence so as to obtain for it the closest attention.

I will venture to affirm that if it were not for this impediment the aspect of affairs and the conditions of the money market are now eminently favourable to adventure in home mining undertakings. The *Times* of the date last quoted has a paragraph which strikingly confirms this :—"The contest between France and Prussia, as to which power can soonest exhaust the financial power of the other in warlike armaments, must operate as a check to any indiscriminate or large ventures in continental loans." Assuming the correctness of this opinion, it follows that home enterprises, if the law and the Legislature give them fair play, are more likely to gain the returning confidence of the public than any other. If so, Mr. Editor, I shall have your concurrence and aid in bringing this important subject before the public, and commending it to the discussion and action of all who are interested in Mining. THOMAS SPARGO.

Gresham House, London. ——

ON THE WASTE OF MINERAL AND OTHER NATURAL PRODUCTS.

SIR,—Under the above heading Mr. Rickard, the assayer of Crown-court, has added much to the sparse stock of information we possess upon the industrial resources of our maritime provinces of Nova Scotia, the Magdalene Islands, and Newfoundland. In a political sense these islands demand the cordial sympathies of the Imperial Government for the retention of the nautical type and self-reliant energies of their stalwart indwellers. The former quality, which has secured for them the distinctive title of the "Nursery of the British Navy," will be still further advanced by any additional impulse rendered to their fisheries, as proposed by Mr. Rickard; the latter by the prosecution of mining operations, for which a considerable surface is eminently well adapted. Though a little foreign to the special purport of your correspondent's letters, I shall refer briefly to one or two features connected with the mineral deposits of Newfoundland, which have been manifested within the last few years. On the eastern shore of the Placentia Bay, and constituting a portion of the freehold granted by the Crown to the New York, Newfoundland, and London Telegraph Company, and upon which is erected a telegraph station, there is, in active and profitable operation, the Newfoundland Lead Mine, one of most extraordinary productiveness, it being a well-defined "pipe" vein, of great magnitude, and yielding 80 per cent. of lead, remarkable *for its softness and purity*, from lodes 4 to 5 feet in thickness, besides frequent supervensions of vughs or caverns, each containing many tons of pure prill ore, entirely free from gangue, thus obviating the trouble and expense of dressing. Of this valuable property, one of the most proficient Cornish mining engineers, and one thoroughly conversant with the mine, reports—"In all my experience in many well-known and most profitable lead mines in England, Wales, and on the Continent, I know of none that promise to be as productive as the Newfoundland." Again, on the southern coast of this island lies the Little Lawn Bay mining property, whose characteristics are large deposits of galena, exceedingly rich in silver, together with ores of the latter—as black oxide, vitreous ruby, and horn silver, in workable quantities. Both these undertakings bid fair for the investment of English capital, especially if combined with the prestige which long practical experience has universally accorded to our miners.

Leaving the further consideration of this question to a more convenient occasion, I will now confine my strictures to the waste matters of the fisheries, with references to their most satisfactory utilisation. In effecting this truly important object, I apprehend no insurmountable difficulty. The engagement in all its ramifications is one, it strikes me, of facility, in which a certain and steady sale must result, and where speculation will give place to legitimate enterprise, and safe investment dislodge risk. At no period in the annals of British husbandry has there been so great a demand for a reliable fertiliser, a substance to supplant the thousand and one nostrums paraded before agriculturists by ignorance and duplicity, and many of which have so cruelly disappointed the hopes and expectations of a community themselves honest, confiding, credulous. In the list of natural manures we have first and foremost the dung of animals. This is the farmer's sheet-anchor. It is a home produce, beneficial to all crops, available at all seasons, compounded of every appropriate element, suitable to all lands. But, considering the enormous preponderance of resulting crops removed from the place of their growth, the quantity retained upon the farm is only represented by the proportion requisite for the food and litter of the stock, minus the amount assimilated in the absolute constitution of the animal frame, and that evolved by perspiration, therefore the muck-cart fails to yield a sufficient return to the land impoverished by successive crops. Modern arrangements dissipate the most essential elements. In proportion to the consumption of farm produce by the human species must be the loss of the fertilising elements, unless these are restored in some other form to the land whence removed. This is an axiom palpable to the meanest capacity. Yet in absolute practice how almost universally ignored! Thousands of tons of farm and garden produce are annually imported into the great metropolis, whilst an equivalent number of pounds weight do not find their way back to restore fertility to the exhausted soil. Ingenuity has been taxed to the utmost to evict human excreta from the category of manures. It has, in most populous places, been rendered subservient to the dictum of Boards of Works, Commissioners of Sewers, and Officers of Health. It will be well if ultimately a commensurate penalty is not exacted for the general adoption of means of getting rid of so vital a source of fertilisation. The exigences of very large and populous cities may demand the sacrifice, but there are other places where the holocaust is not so imperatively required. One feature in this enquiry appears to have been entirely overlooked by Mr. Rickard, and one of such demonstrative importance that its oversight by that gentleman can only be accounted for by the supposition that he was chiefly anxious to arrive at the main topic of his subject with as little circumlocution as possible, I mean the almost fabulous results which accompany the application of sewage over those districts situated within the radii of its influence. Unfortunately for practical purpose these are limited, in consequence of the expenses consequent upon engineering arrangements, and from the unavoidable excess of dilution; whereas the concentration of sewage, of which we have heard so much, even *ad nauseam*, is totally impracticable, owing to the most valuable portions being most soluble, and inseparable from the fluid by either evaporation or precipitation by any available method at present known to the chemical world.

It is impossible that so gigantic an outrage of Nature's laws as the reckless discharge of these principles, the pecuniary yearly value of which can only be estimated by millions of pounds sterling, can be perpetuated with impunity. To those localities where the sewage system is not yet adopted I would emphatically appeal for a trial of other means than flushing. Dry earth, peat, peat charcoal, coal-ashes—in fact, any and every dry absorbent matter—will remove odour, and render the manure portable, efficacious, innocuous. The first-named is Nature's own special deodorant; it is costless, unlimited, auxiliary. Trouble is entailed upon its use, but, as a set off, the resulting product is of inestimable value, and a small annual income supplies the place of a heavy disbursement.

The dung of birds, under the name of guano, has long held a prominent position in the farmer's estimation, but, as Mr. Rickard pertinently demonstrates, its stimulating properties predominate too much over the nourishing qualities. Mere mineral fabrics furnish only the elements of which themselves are built up. Plants in their growth demand every constituent of their organisation; the omission of one element engenders disease, decay, death, as the presence of all, in due proportion, induce vitality, vigour, volume. In quoting the native phosphoric minerals, Mr. Rickard mentions only caprolites and apatite. I would venture to remind him of the existence of a third species of this class, which, as a native of Spain, and existing in vast abundance in the Canadas, has not yet attracted the attention it really merits, whilst from its more easy treatment it would be proved more marketable than either of the others—phosphorite, the opaque native phosphate of lime. Another principal material, employed largely by artificial manure manufacturers as a base, is blood. As a source of ammonia, few articles equal it; but, necessarily, the quantity available is very limited. To utilise the whole stock procurable will involve a comprehensive change in the system of abattoirs in the metropolis. At present much is needlessly wasted; what remains is of small account against the claims of vegetable life and prosperity.

I now approach the main object of your excellent correspondent's subject, and in doing so I feel disposed to endorse all he has advanced, except the statistical portion relative to the capabilities of the North American colonies. Upon this portion Mr. Rickard speaks, as it were, *ex cathedra*. Supposing his estimate to be correct, and certainly, as I gather from other and most authentic sources, it is strictly so, what an inexhaustible reservoir of perfect manure is available to be turned to the best account by British skill, energy, and capital! Even the very small reserve of waste furnished by the chief fish emporium of London, upon being utilised, is made to yield excellent results. From this is furnished by the spirited contractors of Billingsgate an artificial compound, second to none in the market, both for efficacy and cheapness. The aggregate quantity of condemned fish from this celebrated market amounted last year to 40 tons 9 cwts., to this add the waste accumulating from dressing—say double the weight—and we have only 120 tons. How insignificant the supply for the requirements of agriculture! whereas from the islands in question an illimitable quantity may be obtained. In fish, as complete animal matter, all the elements which build up the frame of plants co-exist. Nature, ever perfect in her operations, has placed the animal and vegetable kingdoms in complete dependence upon each other. The system is one entire series of revolutions; the mangle motion is unknown, impracticable, destructive. Each of these two grand divisions is to the other relative, subservient, beneficial—one extracts health, sustenance, and growth from the other. From the feathered tribe guano proceeds. The aquatic birds yielding it procure as their prey the finny inhabitants of the deep. Fish constitutes the sole solid food of these birds—this at once affords evidence of the analogy of their constitution. Chemical analysis has thoroughly established the relation, and aids us in the conclusion that the elements obtained by their decomposition are those imperatively required for the growth of plants. I might, did time and space allow, extend these strictures. Suffice it to say, I fully coincide with Mr. Rickard in his opinion relative to the pressing urgency for the introduction, upon a grand scale, of some additional fertiliser into this country, impoverished as it is gradually becoming of its natural resources; and with him I fully agree that, both as an encouragement to the industrial resources of Nova Scotia, the Magdalene Islands, and Newfoundland, and as an inestimable boon to the agriculture of the Mother Country, there is no source so unexceptionable and promising as that presented by the utilisation of the waste matter of the fisheries of our colonial possessions.—40, *Kingsgate-street, W.C.* W. WHITE,

Consulting Chemist.

MINING IN MEXICO—No. II.

SIR,—The opinion is becoming general that the Government will take into its own hands all the mints in the country, and that the export of metals will be permitted. In order to prove the necessity of the first, Senor Mata proposed the following resolution in the session of Feb. 17 of the general Mexican Congress :—"That the executive Inform what measures have been taken to prevent the frauds committed in the mint in the city of Mexico, not only with regard to the ley, but also to the relative weight of the silver dollar." Senor Mata stated that there existed in the Ministry of Finance a document proving the frauds committed. That in the six months from June to December of last year $2,900,0000 had been coined in the mint, which, being reduced in its value 5 per cent., the contractors had obtained fraudulently a profit of $145,000. The motion of Senor Mata was carried, with the following addition :—"And if it has dictated any measures for the repayment of the losses so caused." This mint is not one of those in the hands of the Anglo-Mexican Mint Company.

The President Juarez, on March 17, issued a decree, in which he says the Government sincerely desire to protect mining in every possible manner, and especially in revising the actual system of duties which weigh on it; and the President has noted with pleasure the interest with which the mining States have commenced to move this question, which is one of vital importance to a country so essentially mining as Mexico, and has, therefore, named a commission, composed of Senores Mucharraz, Godoq, Castelazo, Zamora, Bustamante, and Castillo, to examine carefully the actual state of mining in the country, and especially the present system of duties, and to advise Government the measures which will promote and foment this branch; to propose a new rate of duties, &c., and in order that the States may all participate, they are requested to name a commissioner for the express purpose.

In order to give some idea of the mining districts of Mexico, I quote from a description of the Santa Eulalia Mines, of Chihuahua, by a person who visited them lately; and, moreover, it serves now for most of the mining districts in their present state. In the time of the Spaniards thousands of men found occupation here, when the annual profits summed up millions of dollars, and Santa Eulalia was a city of 7000 inhabitants, and Chihuahua a metropolis of 70,000. At the mention of such greatness strangers are astonished, looking at the present population of 15,000, and not a furnace standing to speak of mining operations, and naturally conclude it is only a false tradition. The inhabitants repeat the history notwithstanding, and not only that it was so, but that it will be so again is the firm faith which pervades all classes. They say the time will come, and the man will come who will extract great riches again. The Mint of Chihuahua is full of statistics, showing the wealth taken out from 1705 to 1737 at $55,959,750 or $1,848,742 yearly average; 1738 to 1791 something more than $40,000,000, making a total of $100,000,000 during 86 years. At present there are only two mines worked, but the most prejudiced observer cannot walk through any of the mines without admiring the boldness and energy of the ancient proprietors, and at the same time reflecting that the field is just as rich as ever, and a glance at the feeble operations at present in vogue results in a proportionate contempt for the degeneracy of the actual owners; in fact, the mines really ceased to be worked when the Spaniards were driven out of Mexico. As miners, the Mexicans are in some respects without superiors; they can tell at a glance the quality of ore, but when extensive management is required they utterly fail. When his mine is in bonanza the Mexican loses his head, and takes no care of his money, so that when the bonanza runs out he has nothing wherewith to renew operations. They have no genius for machinery—they blow, crush, and drill, as did their fathers. For transportation they prefer a train of donkeys to a train of carts, and steam-engines are incomprehensible to them. If it depended on the present owners work would altogether cease. One or two miners receive in advance limited sums of money to pay their workmen. With the produce they repay the loans, and two-thirds of the profits in addition. There is no doubt, however, that mining has suffered more from the continual revolutions than from anything else since the time of the Spaniards, if we except the very heavy duties and prevention of the export of metals; still the mines are no more worked out than those of Cornwall, whilst those of Mexico, being of the more valuable metal, are not liable to those falls of 50*l.* per ton in the value of their produce, which is enough to crush them. The generality of Mexican silver ores contain gold. It is not mentioned in the report of the Sonora Company. It would be well if mining companies, especially foreign ones, gave some more information than that the lode looks "very kindly," and that the ores are black, green, or blue. The public require information now of a more scientific character; and, although it is not supposed that the public understand reports so given, there is no doubt they value them, and companies that give them may be sure they will obtain support in proportion to such information. Meanwhile, Englishmen and miners resident in Mexico cannot but wish good luck to the Sonora Silver Mining Company, as the one that will profit by the proposed change in the export laws and duties, and hope that it is the forerunner of many others, and that it will meet with support in proportion to the full and detailed prospectus. Let us hope that the mines of Chihuahua will soon obtain the expected man, and I wish it were in my power to fulfil their prophecy and hopes. The field is open, however, to the bold and brave to win the fair.

Real del Monte, March 24. —— JOHN P. SEWELL.

THE MINERALS OF CANADA.

SIR,—A rude shock to confidence in gold mining reports was recently given at Madoc, to the grievous injury of all Canada. One of the mines—the Empire Mine—owned by a New York association, was "salted," as the phrase is, and sold. The purchasers discovered the fraud, and frightened the vendors into restitution of the price. The fraud was accomplished by carrying quartz fragments to the mine, containing visible gold, showing them there, getting them assayed, and, on the favourable report of the assayer, selling the mine. The public indignation has now cooled down. But until new developments of real wealth were made I deferred writing on the subject. Even now it seems best to let the statements of others go forth, I only informing readers what reputation the authors of the reports bear in this country.

NORTH SHORE OF LAKE SUPERIOR.—Here is the announcement of Prof. Chapman, lecturer on mineralogy and geology in Toronto University College, that he has discovered gold on the north shore of Lake Superior. The south shore is in the United States, the north is in Canada. He claims priority of discovery, and, writing on April 8, 1868, says :—

"I have found gold in certain specimens of galena and copper pyrites, occurring together in well-defined veins, in the region of Black Bay, lying between the river Nopigon and Thunder Bay, on the north shore of Lake Superior. I collected the specimens personally, in tracing out some of these veins last summer. Carefully repeated assays have yielded amounts of gold varying per ton from 15 to 19 dwts., the mean being 17 dwts. 12 grs., with rather more than 2 ozs. of silver. These results, obtained, it will of course be understood, from surface specimens only, and from specimens entirely destitute of "free" or visible gold, show a value of nearly $21 per ton, irrespective of the large amount of copper and lead present in the ore. From one sample I obtained 8·10, and from another 11·62 per cent. of copper. The latter is equivalent to 232½ lbs. in the Canadian ton. One of these samples yielded also 47·56 per cent. of lead. The amount of gold varies with that of the pyrites. The rocks of the Black Bay region, I may observe, are not of the same geological character as those of the Madoc district. The latter belong to the Laurentian gneissoid series, whilst the Black Bay strata consist of altered silurian deposits identical in general age with the gold-bearing rocks of the Eastern Townships and Nova Scotia. In place of attempting the extraction of the gold on the spot, the proper method of treating these mixed ores would be to run them down in a reverberatory furnace into a so-called matt, a dense fusion product consisting of rich sulphides, retaining all the gold, silver, lead, and copper present in the ore. The excess of galena in these ores, and the abundance of fuel in the district, would enable the process to be easily and cheaply carried out. The matt obtained in this manner would be readily bought up at its assay value by the Swansea smelters."

HASTINGS GOLD DISTRICT.—This district includes Madoc township, the locality of the Richardson Mine, and others, with a reputation so well established that not even the bad fame of the "salting" of one of the Madoc mines can injure them. Belleville is the county town of Hastings. The *Intelligencer* of that place is an old and well-conducted journal. People at a distance desiring continuous and reliable information about the minerals of Hastings—gold, silver, lead, copper, and iron—are likely to obtain it in that respectable paper; so also in the *Madoc Mercury*. Here is the latest :—

A new discovery of gold has been made within the last few days in the township of Marmora, which, if we are to believe the representations, will eclipse anything yet found in the Hasting gold region. Rumours of this discovery have been afloat for a day or two past, but until these rumours took some reliable shape we preferred not to give them currency. To-day, however, we are enabled, on the authority of Mr. Henry Cook, of Madoc, a gentlemen whose word is as good as his bond, to verify to some extent these rumours. Mr. Cook, on Friday last, went to the place where the reported gold discovery was made—viz., the north part of lot 16, in the 11th concession of Marmora—and by personal examination satisfied himself that gold existed there in considerable quantities. The parties who had been digging had only got to the depth of 3 or 4 ft. when they came to a well-defined quartz lead, which they pronounced well filled with the precious metal. When Mr. Cook was there this shaft was filled in, as every one who came was taking away specimens, which contained a good deal of gold. Mr. Cook gathered several pieces of the quartz and took them home, and on breaking them up found gold in nearly every piece. Of 15 pieces, varying in size from a marble to a hen's egg, which that gentleman exhibited here to-day, and which he took himself from the rocks thrown out of the mine, 14 contained gold visible to the naked eye. The quartz is what is called "vitreous," and is considerably iron-stained, though there is no evidence of iron pyrites. The discovery has caused considerable excitement in gold circles, and must have a favourable effect on works that are now in progress in the gold district.

NEW MINING LAW.—The local Legislature of Ontario enacted a law in its first session, recently concluded. It imposes a light tax, which speculators grumble at, but which is no burden if the mines yield riches as represented. If barren, no tax is levied; if false returns of much gold found be made, to induce sales of land, and this should be really a heavy impost on gold extracted, the fraudently inclined will find their interest in honesty. But the new regulations and duties to be levied are not burdensome. Constabulary and law to protect the owners and workers of the mines require payment, and only a tax can give the fund. ALEX. SOMERVILLE,

Hamilton, Ontario, April 16. —— "The Whistler at the Plough."

FRONTINO AND BOLIVIA (SOUTH AMERICAN) GOLD MINING COMPANY.

SIR,—I read with interest, but, I am bound to admit, not altogether with satisfaction, the report of the details of the general meeting, as published in last week's Journal. The first point that occurs to a *bona fide* shareholder, who has continued to pay his calls, believing in the intrinsic value of the property, is—What are the prospects of ultimately achieving success under the present "improved management?" According to your published report, it seems that during the apparently protracted discussion upon the occasion, not a single shareholder ever put this question to the directors, and the only distant reference made to this primarily important fact by the Chairman appears to have been in his statement to the effect that "there were probably one or two redeeming features in the present aspect of their affairs, which, although not equal to the results expected at the outset, yet were exceedingly satisfactory."

Now, supposing that your reporter has not so imperfectly performed his duty as to have overlooked that which is obviously the first—indeed, the *only*—point of real value to the shareholders, I would ask if it can be conceived as credible that a large body of men, supposed to possess common sense, should have met "their trustees"—which antiquated individuals like myself used to call "directors"—and have allowed the proceedings to terminate without adverting in any way whatever either to the working condition of the mines or to the financial *status* of the company? True, the Chairman informed his constituents that during 1867 the debts in New Granada, amounting to 1000*l.* had been cleared off, and that at the end of the year there was a balance on the right side of the account of nearly 30·0*l.*, and, moreover, that the credit of the company had been perfectly re-established, which are statements as satisfactory as they are encouraging; but what I want to know is—What are our present financial prospects, and whether it is probable that the call just made will really be sufficient to enable Mr. Rouch to erect mills equal to the reduction of enough ore to yield a profit? That is the one point upon which I, as a shareholder, desire information, but that is the very point which is not alluded to.

As the time of the meeting appears to have been occupied in the discussion of matters which cannot possibly prove of any practical advantage, I would suggest that the board—to whom I consider we are much indebted for the way in which they have successfully overcome the most serious difficulties—should embody in their next communication to the shareholders such facts as I doubt not would have been elicited had proper enquiries been made.

April 27. —— A COUNTRY SHAREHOLDER.

THE CHONTALES COMPANY—THE ROYALTY SHARES.

SIR,—As a holder of ordinary shares, I beg, with your permission, to use the medium of your columns as the only means whereby I can address my co-proprietors at this important juncture in the history of our enterprise. According to the letters received from Mr. Belt, it *may* become necessary to provide him with some 5000*l.* or 10,000*l.* more capital. In the first place, it is by no means certain that it *will* be required; in fact, Mr. Belt "hopes to bring the mines into a paying state with the amount of capital unexpended;" but, in the next place, should Mr. Belt consider it to be advantageous to the permanent interest of the company to expend forthwith an additional amount of capital, the holders of the ordinary shares should, in justice to themselves, be exceedingly chary how they accept propositions from the holders of the royalty shares.

The holders of the ordinary shares have, with a spirit of commendable enterprise, willingly paid the whole of the subscribed capital; and now, when profitable success appears to be at hand, it would, indeed, be a short-sighted policy if we allow the royalty shareholders to step in and partake of the remunerative results realised by the expenditure of our capital. The royalty shares are, so to speak, commercially worthless until the divisible profits have amounted to 15 per cent. per annum—in other words, the ordinary shares form a description of perpetual preference stock, bearing a preferential interest of 15 per cent. per annum, to be paid out of the first profits of the mines.

Under these circumstances it is perfectly natural that the royalty shareholders, taking advantage of the present exceptionally and unreasonably depressed market value of the ordinary shares, desire to subscribe capital upon the condition that henceforth theirs should be classed as ordinary shares. Rather than to sanction this, holders of ordinary shares had far better empower the directors to borrow capital for a short period, even at a usurious rate of interest, for in that case it would be but a temporary charge, whereas in the other it must be to adversely and permanently reduce the negociable value of the ordinary shares by very materially diffusing the profits over a considerably larger area of capital, and, of course, give to the now royalty shares a market existence which they do not at present possess.

One important fact should not be lost sight of—that the directors are fully

empowered by the Articles of Association to raise capital to any amount not exceeding 20,000*l.* It remains, however, yet to be seen whether further capital will be necessary. I have deemed it necessary to submit these facts in my own interest as well as that of my fellow shareholders.

April 30. AN ORIGINAL HOLDER OF ORDINARY SHARES.

ST. JOHN DEL REY GOLD MINING COMPANY.

SIR,—After having read a letter which appeared in the Journal of April 18, the whole tenour of which was certainly not very "bullish," I put myself to the trouble to find out what interest the writer held in the company. I had hitherto imagined that shareholders would *not* be foremost in pointing out to the world that their enterprise was in a much worse plight than indicated by the official advices; and, therefore, I was somewhat at a loss to conceive the reason which could have prompted anyone to put himself to the pains of attempting to make "confusion worse confounded." But I find that the writer does not hold a single share in the company, and, therefore, his object in "crying stinking fish" is evident.

It would be as well, however, even if those whose only interest is in the depressed value of the shares had some little regard for the truth in their desperate attempts to intimidate legitimate holders. Had the writer of the letter referred to been a shareholder, he would have known that the invested assets, which he says, "will realise 25,000*l.*," actually amounts to nearly 50,000*l.*; and he will find, notwithstanding his lamentations, that the loss upon the March operations will show a considerable reduction as compared with that of the previous month.

It is no doubt a practically inconvenient thing for these ursinical croakers to be compelled to pay as much as 5*s.* and 7*s.* 6*d.* per share at each fortnightly account for the loan of the shares, to enable them to make good their sales, but surely if we, as shareholders, are perfectly satisfied to await the issue of events, and are willing to continue purchasing the shares at a price far above their present quotation, even this disinterested (?) counsellor cannot legitimately complain. Most of the shareholders in this successful company have already received in dividends more than three times the amount they paid for their shares, and they hope and believe they will yet receive a still further amount; therefore, they have taken, and are still taking, advantage of the present price to increase their holdings, which is the source of considerable pecuniary discomfort to "the bears." A SHAREHOLDER.

P.S.—I may further inform the writer that St. John del Rey has sold gold to he value of something like 3,000,000*l.*, while the subscribed capital is 165,000*l.*!

WEST ST. IVES MINE.

SIR,—I did not intend to have troubled you with any further communication respecting West Ives Mine, but having, by the courtesy of the secretary, been favoured with a copy of this week's report, received on Thursday morning, I cannot refrain from congratulating my brother shareholders upon the extremely favourable way in which the mine is opening. In the very interesting description which accompanied the map of the mine, in the Supplement to last Saturday's Journal, it was doubted whether No. 1 lode would prove productive west of the cross-course, so near to the change of ground; and it is, therefore, the more satisfactory to find that this lode "has improved ever since it was cut there, and has every appearance of turning out large quantities of mineral as they drive into the hill." Now, if this lode is turning out so well, so near to the change of strata, what may not be expected of No. 2 lode, when intersected, by driving on the cross-course, in settled ground, so congenial for mineral? It must be highly gratifying to Captain Pope to find his expectations being so completely realised, and should teach us all how important it is to have the opinion of competent men, upon whose judgment and character entire reliance may be placed, and to act upon their opinion. It is no wonder that, under the present improved circumstances of the mine, there should be an active demand for the shares; and should the improvements continue to progress as they have done lately, it is impossible to say what the shares in a mine so favourably situated, and so cheaply worked, may be worth. A SHAREHOLDER IN WEST ST. IVES.

May 1.

THE DARIEN CANAL—No. XVIII.

SIR,—An approximate idea of the traffic that will be likely to pass through the Canal may be formed from the following list, which has been drawn up from the "Statistical Tables relating to Foreign Countries, Part X.," and from the "Statistical Tables relating to Colonial and other Possessions of the United Kingdom, presented to both Houses of Parliament by command of Her Majesty" in 1866. It represents the number and aggregate tonnage of vessels entered inwards and cleared outwards at Pacific ports, from and to Atlantic ports:—

	Vessels.	Tons.
Aspinwall or Colon	533	483,305
[These vessels would have passed through if the Canal had been open.]		
Panama, 1864	276	364,416
Punta Arenas, Costa Rica, 1864	140	112,530
Guatemala	No returns.	
San Salvador	No returns.	
Mexico, West Coast	No returns.	
San Francisco, California, 1864	922	675,481
[In 1853 the number of vessels was 2683, and the tonnage was 1,198,827 tons.]		
British Columbia, 1863	Returns incomplete.	
Vancouver's Island, 1863	1171	223,676
Honolulu, Sandwich Islands, 1865	151	67,068
[Entered only. Entered and cleared in 1855, 640 vessels, and 455,790 tons.]		
Sitka and Russian America	No returns.	
Kamtschatka	No returns.	
Equador, Guayaquil only, 1864	406	104,771
Peru, 1865, Islay only	74	33,952
[In 1855, 404,638 tons of guano were exported. In 1858 the total tonnage was 830,000 tons.]		
Chili, 1863	2650	1,558,650
Tahiti, Society Islands, Port of Papeeta, 1864	206	21,361
Hong Kong, 1863	294	214,138
[Total tonnage of Hong Kong, 1,806,881 tons.]		
Japan, Nagasaki, and Hakodadi, 1865	479	160,484
Labuan, 1863. [Entered only.]	3	1,670
Siam, Bangkok, 1865	146	52,197
Philippine Islands, Manilla, &c., 1864	No returns.	
Java and Madura, 1863	555	358,880
Australia and New Zealand, 1863	923	655,586
[Total tonnage, 3,834,772 tons.]		
Total	8929	5,088,165

The tonnage of China should be added to the above; but, of the 16,684 British, European, and United States vessels, with an aggregate tonnage of 6,458,515 tons, which entered and cleared from the ports of China (exclusive of Hong Kong) in 1864, the statistics do not show what number sailed from and to ports on the Atlantic. In 1854, the commerce between the United States and the Pacific (exclusive of California) amounted to 957,599 tons, in 1856 vessels; the value was $33,953,456. In 1858, 1,000,000 tons of freight were carried to Australia in American ships. In 1863, the value of the imports into Australia was 34,264,597*l.*; exports, 28,378,355*l.*; total, 62,642,952*l.* The export of bullion and specie included in the above amounted to 12,677,319*l.* The export of gold from Australia from 1851 to 1866 amounted to 140,000,000*l.* This quantity of gold would form a pyramid 50 ft. 10 in. high, and 10 ft. square at the base; its cubic measure would be 1994 feet, and it would represent a weight of 1071 tons 3 qrs. 12 lbs. The population of Australia in 1863 was 1,439,060. The value of the cargoes that would annually pass through the Canal is estimated at 150,000,000*l.*

The profits that would be derived from the Canal would consist of the tolls on ships passing through it. If we add to the 5,088,165 tons, given above, 500,000 for places from which the returns are wanting or incomplete, and 2,500,000 for China, the total will be upwards of 8,000,000 tons, which, at 5*s.* per ton for tollage, would yield a revenue of upwards of 2,000,000*l.* per annum. Besides this, a large income would be derived from the sale or rents of lots of land, which would be required for building on, as a "Magic City" would soon spring up at either terminus, and at a later period land would be in demand for tillage and grazing farms, for raising vegetables, and rearing cattle for the re-victualling of vessels passing through. The Canal once cut, the expense of its maintenance would be very trifling. It may, then, be assumed that the profits that will be derived from it will pay an interest of 33 per cent. on 6,000,000*l.*, its probable cost; and this will be always increasing *pari-passu* with the increase of the population and commerce of the world. E. CULLEN.

AGRICULTURAL HOTEL COMPANY (Limited).—The fourth annual meeting of shareholders was held at the Salisbury Hotel, Salisbury-square (Mr. Henry Trethewy in the chair). The report of the directors was read by Mr. W. H. Lewis, manager and secretary. The business of the year shows an increase of 1446*l.* 16*s.* 4*d.* Considering that hotel business has been so unsatisfactory during 1867, this increase is encouraging. In the first three months of 1868 the returns are 300*l.* in advance of the first quarter of 1867. The premises sub-let nearly pay the ground rent of the whole property. Captain Denny, one of the directors, has died during the year, but it is not proposed at present to fill up the vacancy thus created. The report was unanimously adopted.

DIRECTORS' LIABILITY FOR SUMS IMPROPERLY APPROPRIATED.—In re the Brighton Brewery Company (Limited), an application was made to the Master of the Rolls, under the Companies Act, 1862, sec. 165, to charge the directors with moneys they were alleged to have received and misapplied or improperly retained for their own benefit, as fees, amounting to 220*l.*, for their attendance as directors. A winding-up petition having been presented, the directors were served with a notice not to part with any of the funds of the company; notwithstanding which they met a few days afterwards, and cheques were then drawn for the fees claimed by them. The Master of the Rolls said: "I think that after the presentation of the petition to wind-up the company, and the notice served, the directors had no valid authority to divide any of the funds amongst themselves, and that these cheques must be refunded, subject to this—that it is to be without prejudice (if, after payment of the creditors and the costs of the winding-up, there shall remain any surplus) to the claims of the directors to be paid what, if anything, they are entitled to for their services."

REFUSAL TO REGISTER REDUCTION OF CAPITAL.—It has been decided by the Court of Exchequer, in the case of the Droitwich Patent Salt Company (Limited) *v.* Curzon, that a joint-stock company with limited liability, whether it be a company originally created under the Companies Act, 1862, or a company already existing at the time of the passing of the Act and subsequently registering itself under the Act according to the provisions of its deed of settlement, has no power to reduce the amount of capital which has once been registered as its nominal capital, notwithstanding even that, in the case of such latter company, the original deed of settlement may contain a power authorising such reduction to be made. Such power of reduction ceases upon, and is abrogated by, the company's registering itself under the Act. The Registrar of Joint-Stock Companies, therefore, is justified in refusing to record on the register any such reduction of capital, and an action against him at the suit of the company for such refusal is not maintainable.

Meetings of Public Companies.

PENHALE WHEAL VOR MINING COMPANY.

A general meeting of shareholders was held at the offices, Great Winchester-street, on Monday,—Mr. HOLROYD in the chair.

Mr. W. BATTYE (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed.

A financial statement was submitted, which showed a balance of liabilities over assets of 1252*l.* 9*s.* 4*d.*

The report of the agent was read, as follows:—

April 18.—Hollingsworth's engine-shaft is sunk 10 fms. 3 ft. below the 74. At present the shaftmen are engaged about a contract which I have set them for 21*l.*, to case and divide the shaft from the 74 to the 84, cut ground for plat and winze-brace, put in penthouse, plat, sollar, and do all the requisite work preparatory to sinking below the 84. As soon as this work is completed we shall again push down the shaft with all speed, to get under the hard floor of ground which traverses the district, and also to reach the junction of the two lodes that are now standing on the north and south side of the shaft, unseen below the 74; and, in my opinion, when this is reached we shall be rewarded for our perseverance, as we possess the same cross-courses as Great Wheal Vor Wheal Metal, the adjoining mine, and identical floor of ground, under which they have been and are still raising large quantities of tin.—Penhale Lode: At Holroyd's flat-rod shaft we have forked the water and cleared the stuff to the 60 fm. level, cased and divided the shaft, and fixed pitwork. We have also cleared and secured the 30, 40, 50, and 60 fm. levels; in the latter fixed air-machine, and now driving west on the north lode, which is 1 foot wide, composed of peach, prian, and quartz, and produces stamping work for tin. It is important that this level should be extended west, to get under the tin ground seen in the levels above, and also to prove the junction of the north and south lodes, which at this point stand only 6 ft. apart. The lode in the winze sinking below the 50 west is 10 in. wide, composed of capel, spar, and tin, but not sufficient to value. On Little Benjamin's we have erected horse-whim and shaft-tackle, collared up and cleared shaft to the 40, and put in penthouse. The lode in the shaft sinking below the 40 is 6 in. wide, and yields good work for tin. When this shaft is holed to the 50 we shall be able to drive the west end back through the Bounder cross-course, and also continue the sinking to the 60, to communicate with the level driving west from Holroyd's, and that the tributers may work on the tin gone down in the bottom of the 50 to a better advantage. During the past six months we have principally been employed in erecting machinery, changing the pitwork in Hollingsworth's engine-shaft, and draining the Penhale part of the mine. This is complete, and our future operations will be on the course of the lodes, and I feel assured that a vigorous prosecution of the points referred to will be attended with satisfactory results. We have also driven in levels 3 fms. 1 ft., rose in back 9 fms., cleared stuff and put in barrow-road at the 38, west of Hollingsworth's shaft, cut ground, and put in launders in the 38 fm. rise and level, to take the water back from Holroyd's shaft to the engine, which has greatly eased the consumption of coals, and fixed new wood rod to balance-bob.—Number of hands employed: On tutwork, 25 men and 3 boys; tribute, 16 men; 1 timberman and 1 pitman; 3 fillers and 3 landers; surface, spalling, and other work, 4 men and 2 boys; enginemen, 4; carpenters and sawyers, 3 men and 1 boy; smiths, 3; dressing-floors and burning-house, 2 men, 12 boys, 10 girls: total, 93. We sold during the quarter 8 tons 9 cwts. 2 qrs. 11 lbs. of black tin, which realised 455*l.* 9*s.* 4*d.*—W. H. MARTIN.

The CHAIRMAN moved that the report be received and entered on the minutes, and that the accounts be passed and allowed. The several points of operation in the mine had been so fully adverted to by their agent, Capt. Martin, that but little was left for him to say. He might, however, mention that, accompanied by Mr. Sanford, one of his colleagues, he (the Chairman) recently visited the mine, and went underground. They were both much pleased with the able, energetic, and economic manner in which every detail was being conducted, and also very much encouraged to find that as the development progressed the mineralogical indications continued to be precisely indentical with those of the neighbouring property, Great Vor, which was the most productive tin mine in Cornwall. As he had stated upon previous occasions, Penhale Wheal Vor was intersected by the same cross-courses as Wheal Metal (the present Great Vor) and also the Old Wheal Vor, which gave to its shareholders some 2,000,000*l.* worth of tin. In those mines there had been the same bar of hard ground met with as that which was being sunk through in Penhale, and, therefore, there was every analogical reason to believe that when the sinking had been continued to a depth below the influence of that unproductive rock results would be realised similar to those which had been and still were being achieved by their rich neighbour under similar conditions.

Mr. DU PUY enquired the quantity of tin sold during the last quarter?—Mr. BATTYE replied that it had amounted to an average of scarcely 3 tons per month; but he thought there was reason to hope the monthly returns would be increased during the current quarter; 7 tons per month would about cover cost.

Mr. DU PUY said if Penhale should prove a success it would be a very great one, and for this reason that the company was now divided into a little over 2000 shares, whereas in Great Vor there were nearly 6000. Theirs was an exceptionally small capital as compared with other mines of the same magnitude.

Mr. BATTYE said their position was a very favourable one in that respect. Their property was now in the same position as Great Vor was while sinking through the same bar of hard ground, and, as the Chairman had said, it was traversed by the same cross-courses, the importance of which would be fully appreciated by all who had had any experience in mines. The lode in the shallow levels above the bar of hard ground had, indeed, been more productive than in Great Vor, which was an additional reason for hoping that profitable results would be attained so soon as the unproductive strata had been sunk through. Of course, the low price of tin during the last two years had been a great drawback to them.

Mr. DU PUY asked if that bar of killas had been sunk through in Penhale by any other company?—Mr. BATTYE said the previous workers sunk through it for 20 fms., when operations were suspended, partly in consequence of the low price of tin, and partly from dissatisfaction with the management, but that was 25 years since. The present company was continuing the operations which their predecessors commenced, but abandoned for the reasons he had just stated. As to this bar of hard ground, he should have considered it a very great misfortune if they had not met with it in Penhale, because it would have shown at once that there was dissimilarity in the character of the ground, as compared with that in Great Vor.

Mr. RITCHIE said it was the manifest policy of the present shareholders to continue the present operations with energy and economy; and while upon that subject he might state that he thought it was but due to Capt. Martin for the shareholders to express their satisfaction with his management of the mine. Capt. Martin had proved himself to be a man with integrity of purpose, and of zeal and intelligence.—The CHAIRMAN fully agreed with that opinion, and stated that the committee would communicate the fact to Capt. Martin.

Mr. BATTYE, in reply to questions, stated that the shaft was sunk 13 fathoms below the the 74, and that the hard bar of ground began to show itself at the 54 fm. level. The thickness of the bar in the adjoining mine had averaged about 50 fathoms.

The report was ordered to be entered on the minutes, and the accounts were passed and allowed. A call of 10*s.* per share was made, payable in two instalments. The committee of management were re-elected.

A vote of thanks to the Chairman terminated the proceedings.

CAPULA SILVER MINING COMPANY.

The annual meeting of shareholders was held at the City Terminus Hotel, on Wednesday,—Mr. JOHN PHILLIPS in the chair.

Mr. G. F. SMITH (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed.

The report and balance-sheet (which appeared in last week's Journal) were taken as read.

The CHAIRMAN said that the directors at the last meeting promised that no further call would be made without first convening a meeting. They had kept that promise, because in point of fact there had been no necessity to make a call until the time for holding the annual general meeting; and it would not now be required if the directors were not obliged to provide money here so that it could be placed in Mexico, for if the money were not provided before the company was drawn upon time would obviously be lost. He thought from Capt. Paull's letter, received this morning, that the returns would very soon pay the costs of the concern. Capt. Paull had informed them that there was in the hands of the agents $1123, and he had sent to Mexico silver worth 700*l.* So that the mine cost was to a certain extent provided for, and whatever money might be wanted from this country would be for the purpose of supplying the mine with enlarged reduction works, which all would agree was a most desirable thing to carry out. As far as the mine was concerned, he thought the meeting would agree with him in thinking that, from the tenor of the advices just read, it was looking remarkably well. It appeared they had arrived at a most interesting period in the history of the company. It would be seen by the sections that the adit level had been driven on the vein 300 varas (about 150 fms.); the large portion of that drivage had been in ore ground, and they had now the ore in the Esperanza level west, and the vein had improved in the San Enrique level east. Besides these points, ore was being worked upon above those levels, while in the winzes sinking below them it had, in every instance, been proved that the ore had gone down. Neither Captains Pengilly, Grose, nor Paull had any doubt whatever as to ultimate success, and he thought shareholders might fairly congratulate themselves upon the present appearances of the mine. As regards the reduction works, the agent had been able to make arrangements for the use of a hacienda in the district for reducing the ore, so that henceforth very different results to those hitherto attained would be achieved. There was a little omission in the report of the directors in not stating the quantity of ore from which the 583 marcs of silver were obtained in the last quarter; it was only 23 tons, realising about 980*l.* sterling, or 43*l.* per ton. The ore amalgamated produced 140 ozs. of silver to the ton, and the 27 cargas of smelted ore 460 ozs. to the ton. He found, by the report received from Capt. Paull this morning, that the ore in course of reduction assayed 22½ marcs per monton, which was equal to about 120 ozs. to the ton. It was not well to expect that that produce would continue, or that all the ore extracted would be so rich; but still there were the indications of a rich vein, and they could scarcely expect that it would not give more ore of a similar quality, besides a large mass of poorer ore. The change from the gossan to the blue ore was that which Captain Paull naturally looked forward to as a most favourable indication. It was very common in Mexico for a change of that kind to take place, the blue sulphuret of silver being mixed up in the matrix. They had completed two barrels upon their own property, which were reducing ore at the rate of 60 cargas per week. They were not, however, satisfied with two barrels, but hoped to gradually increase the number as the exigencies of the case demanded. As to the management, he thought the company was now in a better position than at any previous period. He felt bound to state that the feeling which had been expressed on a former occasion against Capt. Paull's management was not altogether well founded, for he had had very great difficulties to contend with, but since the communication by the directors he had displayed great energy, zeal, and ability in doing what had been required of him, and he now had the assistance of Capt. Pengilly, who was a man of great experience in Mexico; therefore, he (the Chairman) thought their prospects generally had considerably improved, and, without raising any sanguine expectations, he felt justified in saying that he looked upon the Capula Company as one of the most promising silver mining companies of the day. (Hear, hear.) He moved that the report and balance-sheet be received and adopted.

Mr. HILL had hoped that the Chairman would have referred to the present and prospective political condition of Mexico; and as to the mine costs, he thought it would have been more satisfactory had that item been submitted in the shape of a tabulated statement. He was glad to find that Capt. Paull had been awakened to the necessity of a more energetic action in the development of the mine. As to the engine, he would like to know if the directors now knew its total cost? Although the capital was near its tether, yet there could be no doubt that even if it became necessary to exceed it there would be no difficulty whatever in obtaining an additional amount, especially on the part of those who were aware of the worth of the property.

The CHAIRMAN, in explanation, stated that the directors were not now dealing with Capt. Paull's expectations, but with facts, for the silver had been received and a certain quantity had been reduced, and more ore was going into the reduction works; he had $1123, which it seems would be sufficient for his wants, and in addition he would soon have some silver coming in from those ores, while the mine was in such a position that he would be able to extract from it, if he could reduce the ore, such a supply as he required. When the directors asked the shareholders to provide another call of 2*s.* 6*d.* per share, which was equal to 2500*l.*, they might state that without any assistance it would be sufficient to carry them on for about five months, and with assistance he hoped they would not want another call. (Hear, hear.) That was his hope, but he did not say it would be so. As to Mexico, he had seen a letter received that morning, in which it was stated that the condition of the country was very much improved; and therefore, they might look forward to better times. As to the mine cost, the details were not yet printed, simply because they were hardly yet in a position to do so; but now that they received from the mine regular tabulated statements showing the details of the costs and returns, he hoped that in another year they would be able to present a tabulated statement attached to their report. As to Capt. Paull, he was still resident at Pachuca, but visited the mine twice or thrice a week; but they now had the advantage of Captain Pengilly's constant attendance at the mine. He thought the company reaped some advantages by Capt. Paull's residence at Pachuca. Judging from the information, he (the Chairman) was perfectly satisfied with the management as it now stood. As to the cost of the engine, he thought he might fairly say they had arrived at its total cost; although it had exceeded the original estimate by 500*l.*, the estimated cost being about 1500*l.*, yet there were very good reasons given for the extra cost. They knew that it had been sent up at a time when the carriage was double what it would have been had they waited till the rainy season was over—that was admitted to have been a mistake; and as to its erection, that had been delayed simply from the want of people.

Mr. CHYNOWETH (a director), who had recently returned from Mexico, stated that he had had the advantage of seeing the property, and he was fully prepared to endorse every information that had been laid before the proprietors, and especially the facts communicated in Captain Grose's report that had been circulated. He (Mr. Chynoweth) was fully persuaded they possessed a very valuable property, and as a proof of his opinion he might state that he was the largest shareholder in the company. He was not at all afraid that their anticipations would not be fully realised as soon as the engine was got to work. The richest part of the mine was at the water-level, so that immediately pumping was commenced the extraction of ore could be largely increased. (Hear, hear.)

The CHAIRMAN, in reply to a question, stated that Capt. Grose had informed them that the engine would be ample to carry the mine down to the junction of the veins. An engine of its kind had worked the Pontgibaud Mine to a considerable depth, and there was another in Central America which had done an enormous duty for its size.

Mr. REED directed attention to the arrears of call, and suggested that such shares as were in arrear of more than one call should be sold by public auction.

The CHAIRMAN said that the arrears of the last call amounted to less than 400*l.* The power was in the hands of the directors to forfeit the shares, and he quite agreed that the payment of the call should be enforced.

The report and balance-sheet were received and adopted.

Upon the propositfon of Mr. REED, seconded by Mr. HILL, it was resolved that notice be given to persons in arrear of call that if such arrears be not paid within one month, the shares be forfeited, and that they be forfeited accordingly.

Messrs. Sankey and Bell were re-elected directors, and Messrs. Swaffield and Marsh were re-appointed auditors.

Mr. SWAFFIELD considered the prospects of the mine were most encouraging. In December he gave it as his opinion that a large quantity of ore would be found in the upper workings, and he was glad to find that his opinion was receiving such full confirmation. One of the most satisfactory features was that the ore ground was drained by a deep adit, by which their expenses would always be greatly economised as compared with most mines. Another satisfactory feature was that the vein in Esperanza level appeared to widen and improve as depth was increased. He had previously had occasion to find fault, but now he had to bestow commendation. He believed that during the last twelve months their directors had served them well; they were all much indebted to their Chairman, whose experience and mining knowledge had been of very great advantage to the company. (Hear, hear.) In the present state of the capital account the shareholders could not afford to be generous, but when their affairs assumed a different position it would be the duty of the shareholders to remunerate the board commensurately with the services they had rendered. He would now propose that the sum of 200*l.* be voted to the directors, and an additional sum of 25*l.* to the Chairman, in recognition of the zeal and ability with which he had presided over the company. (Hear, hear.)—The CHAIRMAN objected to the last part of the resolution, but upon being duly seconded it was put and carried unanimously.

A vote of thanks to the Chairman and directors terminated the proceedings.

FOREIGN MINING AND METALLURGY.

The various Belgian Coal Markets have presented somewhat more animation, orders having become more abundant, while tolerably active deliveries have been made. Stocks have not, perhaps, diminished, but, at any rate, they have not increased during the past week. The extraction still remains restricted, but buyers generally show less hesitation, and, if the present tendency in affairs can be maintained, there are some hopes that stocks will be reduced, and that the extraction will be augmented. Prices remain feeble at present, and it is feared that some time will elapse before they revive, Belgian coal being a good deal offered on almost all markets. All the efforts of Belgian coalowners appear to be directed at present towards the markets which have been invaded by the competition of the coal of other countries; the greatest sacrifices have been made in the Low Countries, where Belgian coal has been in sensibly less demand of late. The coalowners of the Liége basin complain greatly of the tariffs of the Dutch Railways Working Company. While these tariffs favour in an especial manner the arrival of the Ruhr coal in the Dutch Limbourg, and even in the Campina, as far as Hasselt, they have, it is said, been raised in an exorbitant degree for Liége coal sent to Holland and to the Limbourg. Metallurgical affairs seem to be somewhat reviving in Belgium; current orders for merchants' iron are tolerably abundant, and great contracts for rails do not make default. Besides a contract concluded by the house of De Dorlodot for the St. Petersburg and Helsingfors Railway, to which reference was made last week, it appears that several other important orders are in sight. Two adjudications are announced; the first is for the North-West Swiss Railway, and comprises 1500 tons of rails, and a considerable quantity of accessories; the second is for the Netherlands State Railways, and comprises 220 tons of rails and accessories. Notwithstanding the increased activity observable in business, prices, however, do not revive.

The state of metallurgical industry does not improve in the Moselle group (France); some orders have arrived from Switzerland, but the number of works now in activity scarcely admits of the running off of products on advantageous terms. The dispatch is noted to the forges of La Villette, of a truck-load of refining pig, coming from the Pont-a-Mousson Works, but little importance is attached to the circumstance. MM. Karcher and Westermann, of Ars-sur-Mosselle, have obtained a contract for the fortifications of Metz. M. Lablé, of Gourcy, has concluded a contract for switch-bolts at 17*l.* per ton, delivered free in the Luxembourg, while certain Belgian works who competed with him declined to go lower than 17*l.* 4*s.* per ton. The "benediction" has recently taken place of the first blast-furnace of the Pont-Fleurs Works, near Nancy. Business is quiet in the Meuse, although some works are pretty well provided with orders. The Paris, Lyons, and Mediterranean Railway Company has just ordered some turn-tables from the house of Vivaux, of Dame Marie. The Frouard Ironworks Company recently proposed to MM. Haloy, Roechling, and Co., of Pont-a-Mousson, the working of its important establishments for five years, without the payment of any rent, and on the sole condition that MM. Haloy, Roechling, and Co. would carry on the works at their own risks and perils, and maintain them in activity. This proposition has been rejected by MM. Haloy, Roechling, and Co., and the result will probably be that the Frouard Company will close its establishments. The last blast-furnace worked with charcoal in the Meuse group, that of Cousances, has just been blown out. The state of affairs in the Haute-Marne remains substantially the same. The Ardennes group has suffered severely from depression, and in this essentially industrial basin only two important establishments remain in activity—Brévilly and Messempré-Osnes. At Brévilly a mechanical construction workshop has been added; it had also been proposed to add a zinc rolling-mill, but this project is in abeyance, in consequence of the difficulty experienced in procuring the metal. At Messempré-Osnes, the rolling-mills receive some orders, which have maintained a certain activity in the establishment. The works generally of the Ardennes continue depressed.

The operations of the Eschweiler Mines and Foundries Company appear to have been attended with a sensible progress last year. In 1867 the total production of lead was 3210 tons, against 2554 tons in 1866, while the production of zinc was 12,597 tons in 1867, against 11,285 tons in 1866. The nett profits of 1867 were 59,276 thalers, against 40,59[illegible] thalers in 1866. It appears that the operations of the Carmaux Mines Company were attended in 1867 with a rough profit of 32,242*l.*; and after deducting loan charges, the sum applied to the redemption of new works, and the amount carried to the reserve, there still remained a nett profit of 24,317*l.* Of this sum 9280*l.* was paid away on account in November, while a second dividend, absorbing 12,992*l.*, was paid yesterday (May 1), leaving a balance of 2045*l.* to be carried forward to the credit of 1868. The dividend of 1867 is thus 19*s.* 2*d.* per share, or 2*s.* 6*d.* per share more than for 1866. The receipts of the Paris Company for Lighting and Heating by Gas continue to make a steady progress. In March the revenue presented an advance of 2·15 per cent. as compared with March, 1867; and in the three months ending March 31 this year the revenue increased at the rate of 4·63 per cent., as compared with the three corresponding months of 1867.

The quantity of coal imported into Belgium in January was 19,180 tons, as compared with 27,630 tons in January, 1867, and 7874 tons in January, 1866. The imports from the United Kingdom were 10,264 tons in January, against 9338 tons in January, 1867, and 2363 tons

in January, 1866. The imports from the Zollverein in January were 4453 tons, against 12,753 tons in January, 1867, and 132 tons in January, 1866. The imports from France were 3538 tons, against 2921 tons in January, 1867, and 5364 tons in January, 1866. The total exports of coal from Belgium in January were 267,171 tons, against 275,771 tons in January, 1867, and 329,253 tons in January, 1866. The exports of Belgian coal to France were 261,951 tons, against 275,771 tons in January, 1867, and 329,253 tons in January, 1866.

MINING IN NEVADA, U.S.

[From our Correspondent.]

Mining affairs in Ione District have taken a favourable turn since the starting of the 20-stamp mill of the Knickerbocker Company, which is now kept steadily at work on ores obtained from the mines of the company and the custom ores of the district, the product being large and increasing. Although several mines in the district have been opened to considerable depths, the water level has not been reached. In the Indianopolis Mine, which belongs to the Mill Company, they have attained the depth of 240 ft. without encountering water. This mine is producing excellent ore. The size of the vein varies from 8 in. to 2 ft. in width. Some 10 mines are now producing ore, while it is believed there are 50 in the district which could be made productive by the expenditure of a small amount of capital.

The mill of the Centenary Company, in the Trewark district, will start on May 1 with ample ore for uninterrupted work. The Chihuahua Mine of the company has developed large bodies of valuable ore, fully $30,000 worth of which has been extracted, and lies upon the dump ready for the mill. Mr. Hanegan, the superintendent of the company, estimates that the ore will average $100 per ton. The company are preparing to manufacture salt on the ground, as saline water abounds in a marsh near by, from which superior salt can be obtained cheaply.

The Combination Company's mill, at Belmont, is now in active operation. The main building is of brick, 300 feet long, and has a capacity of 40 stamps—20 for dry and 20 for wet crushing; but as the ores of the district are of such a nature as to render it almost impossible to save any great amount of silver by wet crushing, it is contemplated to adapt the whole number of stamps to crushing dry, which is necessary when roasting is resorted to, as it must be in properly treating the ores of the district, as late tests of the tailings at this mill, as well as those of the Belmont Company, prove a loss of at least 50 per cent. of silver when the ore is not calcined before the amalgamating. When the additional furnaces are completed, giving full capacity to the 40 stamps, it is confidently expected that the returns from this mill will equal, if not exceed, any in Eastern Nevada. This is indicated by the result of the past nine days run of the mill, upon half capacity, producing in that time upwards of $31,000 in refined bullion. The company ship a large number of silver bricks each week to New York, the head quarters of the company.

At the Midas Mill, near Austin, Messrs. Hodge and Bushfield have just finished erecting works for washing and concentrating the tailings which have accumulated at that mill. The works are located at the lower end of the reservoir in which the tailings are deposited, the whole amounting to about 3000 tons. Repeated tests of these tailings show them to be quite rich in silver as well as quicksilver. The works are very simple, and consist of a couple of wooden tubs and a large wooden settler, for washing the stuff and collecting the amalgam and quicksilver, and a few lengths of shallow sluices, covered with blankets, for collecting the raw sulphurets, the tubs and settler being propelled by a small donkey-engine. A retort placed within the house completes the works, the whole being compact and well arranged. The works have been in operation only a few days, but with very satisfactory results. The tailings thus far washed and concentrated have been taken from the lower end of the reservoir, where the lightest and least valuable portions have settled, yet they give assays ranging from $10 to $30 per ton, besides showing a large amount of quicksilver. The average loss of quicksilver to the ton of ore reduced, where the manipulation of the ore is careful, is 1½ lbs., though much greater where water is scarce, connected with bad management. The tailings after undergoing this partial concentration show plainly the particles of unroasted ore in the mass. As the unroasted ore is generally of the richest quality, it is believed that this plan of concentration if carefully conducted will produce a fair number of tons of great value, of which the expense of roasting and amalgamating will be a mere trifle. This imperfectly concentrated ore yields by assay upwards of $300 per ton. Very fair estimates fix the value of the 3000 tons of tailings contained in the reservoir at $60,000.

Specimens of very singular-looking ore have been lately brought in from White Pine district, 75 miles east of Austin, and deposited with Boalt and Stitefeldt, of the latter place, for assay. It is most unlikely looking stuff to yield silver, and appears to be mere breccia of quartz and slate. Of two specimens assayed the yield was as follows:—No. 1, $1737; No. 2, $657. The ore was taken from the Hidden Treasure ledge, which develops immense masses of it. It is embedded between slate and limestone, and the ledge has been cut through 15 ft. without reaching the upper wall. Miners on the ground pronounced the stuff worthless, and were willing to wager that it contained but little, if any, silver. The large buttons produced from half-ounces of the pulp astonished even the assayers.

There were reduced at the Keystone Mill, and melted and assayed by J. R. Murphy, during the week ending March 31, 20,194 ozs. of crude bullion. This is the first return of bullion since the re-opening of this mill.

The shipment of bullion through Wells, Fargo, and Co., from Austin, for the month of March was 190 bars, weighing 14,989 lbs., and valued at $202,946, $45,318 of which was received from Belmont. This, although below the usual monthly shipment, is deemed encouraging, when we consider that it is mid-winter, coupled with the fact that several of the mills have not made more than half-time, and two have been entirely stopped for want of salt, having failed to lay in a sufficient supply last fall.

MINING NOTABILIA

[EXTRACTS FROM OUR CORRESPONDENCE.]

CHONTALES.—Mr. Belt having vigorously set to work to put up a steam-engine and stamps in a better position, most likely is at work just now in returning more gold, and no doubt the Chontales people are really exercising proper industry to obtain a better produce of the precious metal. Some time since it was stated that its more moderate sized neighbour, the Javali Mine, was estimated to possess some millions worth of gold; but the Chontales have such an abundance of ore and ground that they probably could yield at least double what the Javali Mine would do, and could continue in profitable operation long after other good mines are exhausted. Whatever the market quotations of the shares are, the intrinsic value of the property is in no wise affected, and with patience the shareholders could reap an ample and satisfactory reward. Every ounce of gold previously obtained from the mines proves that they are more certain for productiveness than mere speculative searchings for minerals; and they should certainly yield ample profits, without fear of failure, from the increasing produce—in fact, these mines seem to be a better investment than many others of that nature. The putting up of machinery, of course, has been a matter of some difficulty, but the company will get over all difficulties, and troubles seldom are so considerable as to become insurmountable.

A telegram was received from the agent of EAST WHEAL GRENVILLE yesterday saying the lode in the shaft sinking below the 110 was worth upwards of 4 tons of copper ore per fathom; the ore is of excellent quality.

At WHEAL GRENVILLE the new tin lode in the 120 is still looking well; the ore-bearing part is 10 in. wide, and worth 25 per cent. for tin. The 100 west has also improved, and altogether the prospects of the mine are most encouraging. The new tin lode will be cut at the 110 in about a month.

BRYNPOSTIG.—This young mine is opening out splendidly; the engine-shaft is now being sunk below the 12, through a fine course of ore, worth 3 tons to the fathom. They have 35 tons of lead ore for sale this day (Saturday), being the produce of the last month's working, and from the 12 only.

WHEAL MARY FLORENCE (Limited).—This mine has been visited during the week by a gentleman largely interested in its success, and who expressed himself greatly pleased with its appearance and prospects. The fine sample of ore being drawn up caused extreme gratification to all concerned.

GONAMENA.—This mine is greatly improved. In the 114, on Vening's lode, they have gone over a course of ore for 30 fms. long, averaging 10*l.* per fathom. A winze in the bottom of this level is sunk about 9 fms., and has been gradually improving till it has reached 25*l.* per fathom, and is full 5 feet wide; a strong and splendid lode at present, and scarcely to be equalled in the Caradon district, excepting its neighbour, South Caradon. The 138 fm. level cross-cut has just reached the lode; a few feet has been driven into it from the cross-course, and here it is producing saving work, with an early promise of great improvement; it is looking much better than the level above. If the lode at this level becomes as productive as the winze, they will have 24 fathoms of backs, calls will be suspended, and the patience of the shareholders at no distant period rewarded with dividends.

[ADVERTISEMENTS.]

From Mr. EMANUEL BEAZLEY:—CLIFFORD, PRINCE OF WALES, WEST CARADON, WEST WHEAL FRANCES, LOVELL CONSOLS, REDMOOR, AND NEW WHEAL LOVELL.—Having for some months past recommended the purchase of shares in the above mines as a safe investment, I am glad to be able to call attention to the improvements that have taken place in the two latter mines.—In REDMOOR, a good lode has been discovered, although not yet fully proved. The stuff that has been drawn from the level has turned out ½ cwt. of tin to the ton, leaving very little doubt but that the mine will yet do well, and amply reward the shareholders for their spirited perseverance.—NEW LOVELL, so far as seen, is a great success. Shares have advanced cent. per cent. within a very short time, and have never been so well worth buying as now. The agents value the 40 as worth over 100*l.* per fathom. But one of the most respectable agents in the county has just inspected the mine, and from assay find this end to be worth over 130*l.* per fathom. The great cross-course is about 80 fathoms further east; should this value be maintained, of which there is every indication at present, this will be the finest course of tin in the county of Cornwall. The 53 fm. level is back 10 fms. from the above end, and already shows strong indications of being near a bunch of tin. I again recommend my list of mines as the safest and best that I know as an investment.

From Mr. JAMES HUME:—WHEAL MARY FLORENCE (Limited) is now exciting a considerable degree of interest; and as it is likely to be favoured with a much more extended attention from investors and the speculative, a short notice of its position and prospects may be acceptable to those who desire to watch its progress. It is described by Practicals as "the best young mine of its district." It has cost the original shareholders 2*l.* 5*s.* per share to bring it forward to its present state, and now that success is about to crown their patient struggles they certainly are deserving of all the congratulations and compliments due to their position. The situation of the mine is parallel to the old rich Holmbush. The same cross-courses near which that mine made its great deposits and dividends have the same influence in Mary Florence, and for 60 or 70 fms. in length the lode is considered a certainty for great returns and early profits. The shaft is 33 or 34 fms. deep, and when the next level is opened—we presume the 35—the anticipated results are expected to be made confirmed facts. But this is not all: the shallower level is extending this length of ore ground, and increasing in promising appearance every fathom driven. Though shallow, the yield is good work for copper. In the agent's own words, it is "a very fine lode, and likely to produce an abundance of mineral," leaving no doubt "as to the success of the mine." As shares are only now at a moderate price, no one can hereafter say they have not had the chance of acquiring a good thing, and having fair warning of it. The shares are under 1*l.*, and the original holders, who have spent upwards of 2*l.*, certainly expect to see their money back at no distant day. The inference is obvious.—PRINCE OF WALES: The continued valuelessness of the 65 or bottom level seems to have disheartened not the small or timid into selling, but some of the large holders. In justice to the mine, however, the 65 ought not to be despaired of. It is probable that, both east and west, it will open up into a good bunch of ore as the ends get into more mineralised strata; if so, no doubt the market price will respond to the mine. CHIVERTON MOOR is likely to gain favour as the 75 extends east towards the ore ground. EAST CHIVERTON was well described and its points illustrated at the meeting of shareholders by Mr. T. Woodward, the purser, who left no room for doubt as to what the mine would be at the level next to be opened.

GEOLOGICAL SOCIETY OF LONDON.

April 8.—Sir R. I. Murchison, Bart., K.C.B., F.R.S., &c. (Vice-President), in the chair. The Rev. John Carne, Penzance; J. Whitaker Hulke, F.R.S., F.C.S., Old Burlington-street, W.; and Lewis Thomas Lewis, Gadlys, Aberdare, were elected Fellows.

The following communications were read:—

1.—"On the Disposition of Iron in Variegated Strata," by George Maw, F.G.S. In this paper the author gave detailed descriptions of the phenomena of variegation in rocks of various ages and composition, with numerous analyses of the differently coloured portions. The conclusions at which he had arrived were the following:—1. That the assumed production of the colouring matter of red beds from the decomposition of iron pyrites appears untenable.—2. That the bleaching of red beds by the reducing action of fossil carbonaceous matter will not account for the facts of variegation.—3. That this bleaching and nearly every form of variegation of red beds are caused by the passage of iron from the discoloured areas, unaccompanied by any change of combination, excepting the invariable conversion of the anhydrous into the hydrated peroxide.—4. That the arrangement of the iron has not been produced by solution.—5. That it has in some cases been produced by a variety of evident conditions independent of mere chemical reaction, while in other cases it seems to have occurred arbitrarily.—6. That it is unaccompanied by any other change in the combination or position of the constituents of the stratum, and appears to be wholly independent of its chemical constitution, and simple chemical theory being, in short, insufficient to account for the movement of the iron.—7. That the motion has sometimes taken place centripetally and sometimes centrifugally.—8. That the partial conversion of the carbonate of protoxide of iron into hydrated peroxide is one of the most frequent purely chemical causes of variegation. Other causes are the conversion of the red anhydrous into the yellow hydrated peroxide; the secondary formation of the bisulphide and the several stages of its decomposition in mechanical asssociation with the peroxide; and, lastly, the infiltration of lime and magnesia into red beds.—9. That some of the more complicated forms are due partly to segregation and partly to changes of combination.—10. That the ferruginous banding of yellow sandstones is the result of the segregation of the hydrous peroxide of iron into lines which are invariably adjacent to a bleached part of the stratum over which they appear to have advanced, gathering up the peroxide of iron in their course, and leaving behind them a depleted area.

2.—"On the Older Rocks of South Devon and East Cornwall," by Harvey B. Holl, M.D., F.G.S.—The author divided the rocks of the district to which the communication referred into a Lower, Middle, and Upper South Devon Group, and stated that the lowest beds were brought up along a line of country extending from Dartmoor by Kingston Down to the Brown Willey granite, where they formed a broad anticlinal axis. These rocks are unfossiliferous, and may not be lower in the series than the base of the Ilfracombe group of North Devon, or the highest part of the group immediately below it, the latter being more probably represented by some still lower beds of red and greenish grits brought up to surface in the anticlinal axis of St Broeck's Down, further to the west. The Middle South Devon Group comprises at its base the discontinuous calcareous range of the Looe River, St. Germans, Brickfortleigh, Ashburton, and Bickerton, above which is a mass of blue and claret-coloured slates, which separate it from the Plymouth or Torbay Range. This calcareous and fossiliferous group is succeeded by higher beds of blue and claret-coloured argillaceous slates, followed by hard, red, dark, micaceous schists, and purple and greenish grits, which constitute the author's Upper South Devon Group. These rocks are very sparingly fossiliferous, and probably correspond to the upper and Morthoe portions of the Ilfracombe series of North Devon. The unconformable position of the Culm measures is seen in the circumstance that they rest upon different parts of the underlying Devonian rocks; sometimes on the limestones of the Torbay Range, sometimes on the slates, at others on the volcanic rocks. This entirely separates the South Devon Rocks from the Carboniferous System. The occurrence of the genus Pteraspis, and probably Cephalaspis, with Phyllolepis concentricus and (?) Holoptychius, and other fish-remains, appeared to the author to go a good way towards identifying these Cornish and South Devon beds with the Old Red Sandstone of Scotland. These fossils range up to the very base of the Torbay limestones. The author referred the whole of the rocks treated of, with the exception of the purple and greenish grits of St. Broeck's Down to the Middle Devonian System, and considered that if the lower or Linton rocks were to be met with at all on the south side of the Culm-trough, it would be in the high ground which forms the watershed of West Cornwall. In the concluding portion of the paper Dr. Holl entered upon the palæontological relations of the different South Devon Groups, and especially those of the Petherwyn beds.

The following specimens were exhibited:—Specimens of rocks, &c., in illustration of Mr. Maw's paper; exhibited by the author. Fossils from South Devon in illustration of Dr. Holl's paper; exhibited by the Rev. Wyatt-Edgell. Coal from Asia Minor; presented by C. E. Austin, Esq., F.G.S.

On Wednesday the following papers will be read:—1. "On the Quaternary Gravels of England," by Alfred Tylor, F.L.S., F.G.S.—2. "On the Pebble-beds of Middlesex, Essex, and Herts," by S. V. Wood, jun., F.G.S.—3. "On the Eruption of the Kaimeni of Santorin," by Dr. J. Schmidt: communicated by Sir R. I. Murchison, Bart., K.C.B., F.R.S., &c.

THE WILSON FURNACE.—In an interesting paper read before the Cleveland Institution of Engineers, Mr. THOMAS WHITWELL describes the invention of Mr. E. B. Wilson which consists in the construction and working of furnaces or fire-places, in such a manner that when fresh fuel was supplied, as usual, on the top of the fuel already ignited, the gases generated therefrom were made to pass downwards through the hot fuel, in lieu, as heretofore, of ascending through the fresh fuel, and air was also supplied at such points and in such quantity as might be suitable for complete combustion. He next explained the *modus operandi* of one of the earlier furnaces at work in Glasgow, where the coal entered at the top, and the air passed through the coal to support combustion. Diagrams showing the principle of the Wilson furnace were next explained by Mr. Whitwell, who proceeded to remark in reference thereto that during the introduction of this invention a series of battles had to be fought with the puddlers. The time was unfortunate; puddling was 10s. 6d. to 11s. 6d. per ton, and new things, both from the apathy of masters and the opposition of the men, had very little chance of succeeding. This was the case here. The men struck first against the furnace itself; a fresh strike arose against the underhand having to fill the hopper, which was some 8 ft. from the ground; a third strike was made against the men going into the ash-pit to rake out the clinker once a day; and a fourth strike arose from the men asserting that the masters saved 10s. a ton by the furnaces, and that they would not work the furnaces unless the masters gave them 5s. per ton on puddled bars extra, as it was not fair that the masters should have all the profit. Was it to be wondered that a furnace made so little way against such determined opposition, or that the masters should give up the improvement in disgust? The gases only took up enough air to burn them properly; the action of the damper secured the good yield, whilst the large generator provided a constant supply of gas; at the same time no other furnace would work with the damper in the same position, owing to the difference in the size of the fire-grate and damper. The advantages of this furnace he declared to be that it would make more puddled bar out of a given quantity of metal than any other furnace; it would, under proper treatment, consume all its own smoke; it would, owing to its conditions, make a better and more regular quality than other furnaces, as it never burned the iron, and never worked "rash;" it would not use more fettling than an ordinary furnace; and it would not cost more per ton of iron than other furnaces in repairs, as a less quantity of fuel being burnt there was less cutting action on the brickwork. Having given returns to show that at Thornaby Ironworks the furnaces worked successfully—15 tons of puddled bars being manufactured per week of 59 heats, at 17½ cwts. of rough small coals per ton, Mr. Whitwell went on to describe another form of iron furnace now working at Thornaby Ironworks, which promised to exceed the results arrived at by the one he had already commented upon. This last system of furnace was applied in Lancashire, not only to puddling bar and heating furnaces, but to boilers and furnaces at chemical works for making soda-ash. It was applicable to all purposes where great heat was desired, whilst in first cost and economy of fuel it had no equal.—Mr. Jones (Fox, Head, and Co.), referring to a statement made by Mr. Whitwell as to the consumption of coal in a puddling furnace, stated that there were five puddling furnaces at the Newport Ironworks that worked regularly to 15 cwts. of small coals, at a price of 4*s.* 8*d.* per ton of puddled bar. He drew a comparison between the working of the Wilson furnace and the ordinary furnace in use at the works above named, to show that the former was not so much superior as Mr. Whitwell had led them to suppose.—Mr. Williams manager for Bolckow, Vanghan, and Co., said the consumption at their works was about 16¾ cwts. per ton of puddled bar, and in Wales the consumption was but 14 cwts. He said they wanted to find something other than sand upon which to puddle.

PREVENTION OF STEAM-BOILER EXPLOSIONS.—From the report of Mr. L. E. Fletcher, chief engineer of the Manchester Association for the Prevention of Steam-Boiler Explosions, it appears that during the past month 227 visits of inspection have been made, and 478 boilers examined, 278 externally, 6 internally, 6 in the flues, and 188 entirely, while in addition 3 have been tested by hydraulic pressure. In these boilers 95 defects have been discovered; amongst them were 9 dangerous and 66 ordinary defects in boilers, 12 cases of defective fittings, 6 cases of omission to provide boilers with feed back pressure valves, and 2 cases (1 dangerous) of deficiency of water. Reference is made to the explosion of a boiler at a colliery. It appears that the boiler was about 29 years old, and had been frequently repaired at the plates over the fire, while one of these repairs had but just been completed, and the boiler only set to work a few hours, before it exploded. The repair was considered by the engineer to the collieries to have made the boiler perfectly safe, and he could not at all account for the explosion; notwithstanding which, however, just as some colliers had been lowered down the shaft, and the stoker was in the act of putting some coals on to the fire, a few hours after it was set to work the boiler burst, blowing the poor man out of the firing space and killing him on the spot, in addition to knocking down the chimney and dislodging one of the adjoining boilers, while its own shell was rent into three fragments, one of which was thrown to a distance of 60 yards, another 42, and the safety-valve 30 yards, a portion of a brick being shot through the roof of the cottage—though at a distance of 60 yards—in which the stoker who was killed by the explosion had lived. "The boiler failed in the first instance just at the part where it had been repaired by a patch immediately over the fire, the old work tearing away from the new. This is frequently found to be the case, so that these boilers are often weakened by the very means adopted to strengthen them, and their explosion hastened rather than arrested by repairs. Explosions of this nature will recur as long as the use of these treacherous plain cylindrical externally-fired boilers is persisted in."

SOCIETY OF ENGINEERS.—On Monday evening a paper will be read on "The Marseilles Docks," by M. de Merriteus.

LAND AND MARINE SURVEYING.

That young surveyors are frequently deficient in that knowledge of the technical details of surveying requisite to enable them to fulfil the duties of their profession with pleasure and facility cannot be doubted—so, in order to aid them to avoid such inconvenience, Mr. W. DAVIS HASKOLL, C.E., has provided them, under the title of "Land and Marine Surveying in Reference to the Preparation of Plans for Roads and Railways, Canals, Rivers, Towns' Water Supplies, Docks, and Harbours, with Description and Use of Surveying Instruments," with a volume which cannot fail to prove of the utmost practical utility. He observes that much of the knowledge acquired during many years of experience may often be imparted to a junior in a few words, and it is precisely these necessary words which Mr. Haskoll seeks to lay before his readers. In the earlier chapters he treats of the many minute details on the understanding of which, though simple in themselves, a combined accuracy and rapidity of operation mainly depend. These have been explained almost in the colloquial language in which a surveyor would address his pupils and assistants in the field, and the more fully that the combination of accurate and quick work is indispensable to secure practice. The various modes of making a survey, and the use of the principal surveying instruments, are likewise carefully explained, so that those entirely deficient of actual practice will be enabled to go into the field with considerable confidence.

Mr. Haskoll mentions that the elementary chapters have been written for those who are supposed to have had no practice whatever in surveying, and, indeed, to know nothing whatever on the subject, thereby leaving the reader to determine for himself how far it will be necessary for him to read the first few pages. After describing chains and chaining, Gunter's chain, the 100-ft. chain, and the decamètre chain, arrows, poles, and ranging rods, boning out chain lines, offsets, stations, the field-book, and systematic method of keeping it, he proceeds to give a practical example of chain-surveying, leading the reader step by step to the end, and suggests, by way of ascertaining the amount of knowledge gained, that the student take a chain and poles and go and survey a mile of fields as for parliamentary purposes, doing it steadily and carefully at first, and then plotting it. There is an excellent chapter on surveying instruments, and another on office instruments; whilst the chapter on the application of trigonometry to surveying will prove highly valuable to hundreds. In connection with theodolite surveying, Mr. Haskoll explains setting up the instrument, setting out and practically surveying with theodolite, and protracting; whilst the subsequent chapters treat of engineering surveys with instruments, traverse surveying, harbour and coast surveying, waterworks supply, office work, and elementary plan drawing respectively.

The work, which is published by Messrs. Lockwood and Co., of Stationers' Hall-court, is one which may safely be recommended to all students who aspire to become clean and expert surveyors; and from the exhaustive manner in which Mr. Haskoll has placed his long experience at the disposal of his readers, there will henceforth be no excuse for the complaint that young practitioners are at a disadvantage, through the neglect of their seniors to point out the importance of minute details, since they can readily supply the deficiency by the study of the volume now under consideration.

STENOGRAPHY AND PHONOGRAPHY.—The reputation as a philologist of Dr. K. P. Ter Reehorst is so well known, that he may fairly be accepted as an authority upon all linguistic questions. Under the title of "Stenography and Phonography, or to Write as you Run," showing how the same principle may be applied to the 3065 languages extant, he has just issued, in pamphlet form, a most remarkable little book, designed to enable the student to record the utterances of a speaker, regardless of the language he may speak. The book, which is published by Dr. Ter Reehorst, Forest Hill, Kent, is well worthy of perusal, if only as a literary curiosity.

"NOTABLE THINGS OF OUR OWN TIME."—Under this title another of Mr. Timbs's interesting little volumes has just been issued (through Messrs. Lockwood and Co., of Stationers' Hall-court), forming a supplement to "Things not Generally Known." One of the extracts given will be worth storage room in the minds of many who desire to appear learned, although they possess the merest molecule of knowledge—After 30 a man's ignorance may be stupendous, but it is generally his own fault if it does not remain latent, the reason being that knowledge of abstruse subjects is generally taken for granted, so that a man has only to remain silent to cloak his ignorance. But the attentive study of Mr. Timbs's works will prove of even greater assistance than silence to enable the unlearned to carry out the deception, for they may at least ascertain what opinions have been entertained by those who were really acquainted with the various subjects upon which they may have written, although they may not be able to separate the grain from the chaff. Whether the reader requires information upon the marvels of the universe, geological progress, seas, lakes, and rivers, antiquity of man, man and his monuments, new countries, animal life, trees and plants, science applied to the arts, mining and working in metals, railways, the electric telegraph, or upon numerous other subjects, he will find much to interest him in Mr. Timbs's new book. It is well worthy of extensive patronage.

ROYAL CORNWALL POLYTECHNIC SOCIETY.—The volume of Transactions of this society, containing the report of the March meeting, has just been issued through Messrs. Lake and Richards, Falmouth; it embraces the report of the committee for the year, and an account of the society's annual exhibition, as well as a large number of papers submitted to the society, including an account of Bergström's Boring Machines, and on the Rock-Boring Machines at the Altenberg Mines, by Dr. C. Le Neve Foster; Remarks on Boring Machines, by Mr. C. Fox; Tunnelling by Machinery, by General Haupt; High-Pressure Steam-Boilers, and on Jordan and Darlington's Hydraulic Machinery, by Mr. T. B. Jordan; Beaumont and Locock's Rock Tunnelling-Machine, by Captain Locock; Notes on the Perseberg Iron Mines, Sweden, and Tabulated account of Boring-Machines, exhibited at the Polytechnic, by Dr. C. Le Neve Foster; Brunton's Tunnelling-Machine, by Mr. J. D. Brunton; Doering's Boring-Machine, by Dr. C. Le Neve Foster; the Lenarto Meteorite, by Mr. Robert Hunt; Dredging Excursions in Cornwall, by Mr. Jonathan Couch; Roman Coins found at Pennance Farm, by Mr. Thomas Hodgkins; Rubbings from Cornish Monumental Brasses, by Mr. N. Hare, jun.; and on Cameron's Direct-Acting Steam-Pump, by the Editor. A large amount of meteorological information for the year is likewise given.

THE INDUSTRIAL RESOURCES OF THE UNITED STATES.—The continual extension of English enterprise in foreign countries causes considerable interest to attach to every account of the industrial resources of a country, more especially when it emanates from a reliable source. In connection with Anglo-American commercial affairs, probably few firms enjoy a higher reputation than Messrs. BELDING, KEITH, and Co., the American bankers and merchants of Lombard-street, so that their valuable little volume (published by Messrs. Cassell, Petter, and Galpin), entitled "A Shilling's Worth of the United States of America," will be readily accepted as reliable, and referred to with advantage both by those engaged in mercantile transactions with America and by speculators and investors. From the admirable historical sketch of the States and territories of the United States much information may be gleaned of considerable interest to the mining community, as well as to those engaged in manufactures. Thus, it will be learned that in the State of New Hampshire there are important manufactories for locomotive engines and other machinery at Manchester and at Nashua, and similar information can be gained respecting the various other branches of industry in the several states and cities. With regard to the Pacific States, the mining statistics are very ample; and considering that the resources of those States have been comparatively unknown to Englishmen, they are likely to prove extremely useful. In California mining is the most prominent and important industrial pursuit; it employs more men, and pays a larger average wage, than any other branch of physical labour. The mines now wrought are of gold, silver, quicksilver, copper, and coal. Ores of tin, lead, and antimony, beds of sulphur, lakes of borax, alum, and springs of sulphate of magnesia are likewise found. The gold mines, however, are the most important, the annual yield of gold being about 8,000,000*l.* The aggregate amount taken from the mines is estimated to have been about 143,443,283*l.* Nearly all the copper ore, and a great deal of the valuable gold and silver ore, is sent to Great Britain to be worked. Gold is found in various parts of Southern Oregon, and silver, lead, and copper in the Cascade Mountains; coal deposits, of great value have been discovered, with alternate layers of gypsum; and, from the surveys which have been made, it is believed that an inexhaustible supply of both can be obtained. The mineral resources of Nevada and Colorada have been so frequently referred to in the *Mining Journal*, that it is unnecessary to give Messrs. Belding, Keith, and Co.'s account of them, especially as sufficient has already been given to enable an idea of the general character of the work to be formed. "A Shilling's Worth of the United States of America" is entitled to much the same position, in connection with the negociable securities of the United States, as is enjoyed by "Fenn on the Funds," with regard to those negociable in the markets of Great Britain, and will, no doubt, obtain an equally enviable reputation.

ORIGIN OF COAL.—Sir. R. Murchison's new edition of "Siluria" contains a full and exhaustive consideration of the present state of opinion relative to the origin of coal by growth *in situ* and driftage, and the author sums up in the following words:—"With such data before us we are, perhaps, warranted in believing that a theory of the formation of coal which should embrace as its chief element a widely extended series of shallow and partially enclosed seas, fringed with swampy forests of water-loving plants, subject to further submersion, accords well with observed phenomena."

CONSUMPTION OF GOLD IN THE POTTERIES.—Nearly 50,000*l.* worth of gold is annually consumed in the decoration of china and earthenware in England, by far the greater part of which is in the Staffordshire Potteries, and the total amount used in decorating the pottery goods, and in gilding generally, in England and France, is estimated to be 40,000 ozs. This is lost to the currency for ever. To a large extent the gold is obtained in England from the Bank of England in the form of clipped sovereigns. The popular impression is that the light sovereigns go to the Mint to be re-melted and re-coined, but a vast number of trades in England require standard gold for all sorts of purposes, and these regularly go to the bank to buy these cut sovereigns.

HOLLOWAY'S PILLS.—Can be confidently recommended as a domestic remedy for the ailments of all classes and conditions of people. Young and old, men and women, parents and children, may take this remedy with the certainty of deriving benefit from its use when disorder or disease is making them miserable. Holloway's Pills are unrivalled for their purifying, aperient, and strengthening properties. They remove indigestion, palpitation, and headaches, and are specially serviceable in complaints peculiar to females. Each box of pills is wrapped up in printed instructions for the guidance of invalids, who will readily understand, from carefully studying them, the best way of regaining health. Holloway's pills work a thorough change in the constitutions of the weak and nervous.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS they are emboldened to offer, thus publicly, their best services to all connected with mine or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

SATURDAY, APRIL 25.—Market rather quiet. Prince of Wales, Chontales, Chiverton Moor, and East Caradon chiefly dealt in. Prince of Wales, 52s. 6d. to 53s. 6d.; West Chiverton, 64 to 65; West Seton, 205 to 210; Emily Henrietta, 40 to 45; Chontales, 2¾ to 3; East Wheal Grenville, 37s. to 39s.; and Wheal Grenville, 37s. to 39s.

MONDAY.—The market rather dull. East Grenville, Prince of Wales, West Chiverton, and New Lovell firm at quotations. East Grenville, 38s. to 40s.; Prince of Wales, 52s. to 54s.; West Chiverton, 64 to 65; New Lovell, 17s. 6d. to 22s. 6d.; Wheal Emily Henrietta receded to 38, sellers; Grenville to 37s., sellers; West Seton, 205 to 210; North Crofty, 2⅜ to 2⅝.

TUESDAY.—Market very quiet. Chontales shares receded to 2⅜, sellers. Prince of Wales, 52s. to 54s.; East Grenville, 38s. to 40s.; Chontales, 2⅜ to 2⅝; Emily Henrietta, 35 to 40; Chiverton Moor, 6 to 6¼; Grenville, 36s. to 38s.

WEDNESDAY.—Settling-day, and very little business doing. Prince of Wales, 49s. to 51s.; Chontales, 2¼ to 2½; East Caradon, 4 to 4¼; Grenville, 36s. to 38s.; East Grenville, 37s. to 39s.; Chiverton Moor, 6 to 6¼; Emily Henrietta, 30 to 35.

THURSDAY.—Market very quiet, and prices nominal. Prince of Wales, 49s. to 51s.; West Chiverton, 64 to 66; Wheal Chiverton, 2¾ to 3; Wheal Grenville, 36s. to 38s.; Emily Henrietta, 31 to 33; East Grenville, 36s. to 38s.; and Great Wheal Vor, 17½ to 18.

FRIDAY.—Holiday on Stock and Mining Exchanges.

Mining Correspondence.

BRITISH MINES.

ABRAHAM CONSOLS.—J. Vivian, April 29: No alteration to mention since my last. The lode in No. 2 shaft is nearly all the width of the shaft, disordered, hard, and spare for sinking, but producing occasionally good stones of tin.

BALLACORKISH.—Capt. Grose, April 23: We have finished loading the Bessy and, if all goes well, she will sail for the Dee to-night. The quantity of ore on board is 26 tons 3 cwts. I will send you the bill of lading by the next mail. I was underground last evening, and found the ore in the roof looking well. We broke some good stones of ore yesterday in the cross-cut from the bottom of the winze, and I am in hopes to report a favourable change here in the course of a few days. I cannot see much alteration in the adit end; the ground is intersected with branches of quartz, intermixed with sulphur. The masons are getting on well with the arching of the adit, and expect it will be completed this week. We sent up a nice pile of ore yesterday.

BEDFORD UNITED.—J. Phillips, April 29: No change to notice has taken place in any part of the mine since last report.

BUDNICK CONSOLS.—James Evans, April 27: The tributers working on the south lode are raising good work. This promises to open up a very profitable piece of ground. The old tributers are returning about their usual quantity of tin.

CAPE CORNWALL.—R. Pryor, F. Hosking, April 28: There is no particular change in any of the bargains since our last report, except the 70 fm. level cross-cut south, where the ground is strongly mineralised with mundic and spots of copper ore, as if nearing the lode.

CARADON AND PHŒNIX.—Wm. Johns and Sons, April 29: In the 60 fm. level cross-cut, south of the engine-shaft, we are pushing on this end with all energy, being anxious to intersect No. 2 lode, in this level. In the 50, east of cross-cut, on No. 2 lode, we have cut in north about 15 ft., and intersected the main part of the lode, which is fully 3 ft. wide, composed of capel and quartz, mixed up with yellow copper ore; by the means of this intersection we have cut a large stream of water, and entirely drained the 30, which thus enabled us to sink a winze in the bottom of this level (the 30), which is 50 fms. distant from the present end, and is sunk about 3½ fms.; the lode is 4 ft. wide, containing an abundance of mundic and blende, with fine stone of yellow copper ore; a pretty looking lode. This mine never showed a better feature than at the present time.

CARADON CONSOLS.—S. Bennetts, April 28: There has been no further discovery in the 78 north during the week. The 78 fm. level west end continues much the same as last reported. In the 68 west the lode is still unsettled and split into branches, each containing ore. The lode in the winze below the 68 continues large, and contains a little ore throughout, but not of much value.

CARNARVONSHIRE CONSOLIDATED LEAD.—R. Roberts, April 29: Coed Mawr Pool Mine: Driving the east end is not so good as it was, but I expect it to open out before long. The west end looks more promising than I ever saw it—nice ore in it, and very promising ground. The south driving, on new lode, is poor at present; I expect a change here soon. There are two men raising ore on tribute on the parallel lode west, and two men working on tribute south from the engine-shaft.—Pencraig: We are driving east and west; some ore in each end; the lode is very strong in the west end, and has more lead in it. The east end is not so good; I expect a change in the quality of the rock in the end, and also better ore. The adit level is being driven as fast as possible; I intend to lay down the rails in it next week.

CASHWELL.—John Peart, April 25: The drift below Scar Limestone is improving; we have more ore and better mineral, and expect in a little time it will be easier to drive. No. 1 stope, next to the drift forehead, is opening out well; the vein is 4 ft. wide, permeated with ore, and where the vein is it is very soft; we get large pieces of ore, weighing as much as 8 cwts. each. No. 2 stope is producing some splendid ore, and is easy to work. The stopes are each 6 fms. in length and 6 fms. in height. No. 3 stope west continues about the same, and will pay well for working. The stope in the 5 yard Limestone continues about the same as last reported. We have cut the vein on the Dowkes Mine in plate top of Scar Limestone, but have not yet proved it in the Limestone. We shall sample 40 tons in the course of a fortnight.

CEFN BRWYNO.—James Paull, April 28: No change in the 92 east, the lode not being taken down since last reported on. The same level west is in a lode 2 ft. wide, containing good strings of lead ore, and a good deal of water issuing therefrom, which is a favourable indication. The 80 east is steadily improving, the lode now being 3½ ft. wide, yielding 12 cwts. of lead ore per fathom, and likely to further improve. The same level west is in a large lode, and the part we are extending the level upon is also improved, now producing good saving work. The 56 or deep adit level, east of engine-shaft, is in a lode 3 ft. wide, of a most promising character, containing good branches of lead ore, and I have every reason to believe will open out good ore ground as it is advanced eastward. The cross-cut north in the 20 is being driven with full dispatch; ground harder than of late, containing small strings of spar, and letting out water, which indicates that the lode is not far off. We shall commence dressing the ore next week, if thought proper.

CENTRAL SNAILBEACH.—John Kitto, April 30: The sinking of the engine-shaft below the 164 yard level is being pushed on as rapidly as possible by a full force of men, but the progress made since my last report has not been quite so great as previously, as the ground has become a little stiffer, and the beds thinner. The lode in the sump sinking below this (164 yard) level continues to improve in character as we get down. The carbonate of lime, which is an ingredient much to be desired, increases as depth is attained, and its yield of lead is quite equal to last report, worth at least 2 tons to the fathom. In the 164 yard level, driving west, there is no change of importance since my last; the lode still continues large, and not unpromising.

CHANTICLEER.—W. Wasley, April 30: Last Saturday I let the 110 yard level to drive west of shaft, at 35s. per yard and 80s. per ton for ore, the men to pay all costs for drawing, &c., as usual. The lode in the end is about 2 feet wide, composed of clay, spar, &c., has a very kindly appearance, and is producing some very fine lumps of ore occasionally.

CRELAKE.—Wm. Skewis, W. Hooper, April 29: In the rise in back of the 74 there has not been any lode taken down for the past week. In the 62 west we have intersected a branch containing spar, mundic, &c., but not to value. The lode in No. 1 stope, in back of this level, is 2½ ft. wide, worth 6*l.* per fathom; and in No. 2 stope the lode is 3 ft. wide, and worth 8*l.* per fathom. The lode in the 50 west is 1½ ft. wide, yielding saving work for copper and mundic ores. The lode in No. 3 stope, in back of this level, is 3 feet wide, and worth 13*l.* per fathom. The lode in the 40 driving west is 1½ foot wide, composed of mundic, spar, and copper ore, yielding saving work. This end appears to be getting into more settled ground, and, therefore, we are looking forward to an early improvement. There has been nothing done in the No. 2 cross-cut since last report, as the men have been required at surface to assist in preparing the ore for sampling. The lode in No. 3 stope, in back of this level, is worth 12*l.* per fathom. The lode in the 28 west is 3 ft. wide, containing mundic, capel, and copper ore, and worth 4*l.* per fathom. The lode in No. 2 stope, in back of this level, is 2½ feet wide, worth 10*l.* per fathom; and in No. 3 stope the lode is 2 ft. wide, and worth 10*l.* per fathom. We estimate to sample on April 30, about 230 tons of copper ore.

CWM ERFIN.—April 28: The branch that we are driving on in the 10, north of the old workings, continues to yield from 15 cwts. to 1 ton of lead ore per fm. The ground in the deep adit level is not so easy for progress as when last reported; the lode is 18 in. wide, composed of killas, quartz, and spots of mundic. A trial stope is being put up over the back of this level, about 120 fathoms east of the boundary; the lode is 4 feet wide, and worth about 5 cwts. of lead ore per fathom. This ground is whole to the surface, which is full 100 fathoms high. The lode in the rise over the back of ditto is 4 feet wide, composed of killas, veins of quartz, and a small branch of blende on the footwall. This rise is to ventilate Taylor's drift, which is coming forth over it. The various stopes over the back of the deep adit level have been re-let to 22 men, the lode yielding on an average from 1¼ to 1½ ton of lead ore per fathom. The lode in the drift going east of the boundary is still small and poor. In the cross-cut going south in this level, east of the slide, nothing has been yet met with of any value; the ground hard, and slow for progress. The various stopes over the back of Taylor's drift, in which we have 16 men employed, continue to yield from ¾ to 1 ton of lead ore per fathom. We have resumed the driving of the cross cut south in Williams's level, not being thoroughly satisfied on this point. We have this day sampled 52 tons of lead ore.

DEEP LEVEL.—April 27: The lode in the deep level, west of junction, on Pant-y-Go vein, is about 20 inches wide, containing spar, limestone, and blende, with occasional spots of lead ore, in hard ground. In the deep level, driving south-west on the deep level vein, the lode is about 18 inches wide, composed of limestone, spar, and some nice spots of lead ore; this point has fallen off in value since last reported, but we hope it will improve again shortly. The lode in the pitch over this level, behind the present end, is about 18 inches wide, yielding 10 cwts. of lead ore per fathom. In the 204 yard level cross-cut, at the bottom of Eyton's shaft, we are cutting into the south part of the Pant-y-Go vein; the lode, so far as we have seen, is about 8 inches wide, composed of limestone, spar, blende, and some spots of lead ore, but nothing to value as yet; the lode, so far as cut into, is very hard and dry. The 174 yard level, going west of Pant-y-Go shaft, continues still in old workings, where we are raising some nice solid lumps of lead ore. At Trustee's shaft we have driven out the cross-cut 106 yards below the surface, north towards Pant-y-Go vein 5 yards, but we have not met with the vein as yet; we think it cannot be much further ahead of us; we find some stones of lead ore coming from the present forebreast, which indicates that the lode, or the old workings, is not far before the present end of the cross-cut. The old pitches continue to yield their usual quantity of ore.

DEEP LEVEL.—April 30: We have been cutting into the north part of the Pant-y-Go vein at the 204 yard cross-cut, at the bottom of Eyton's shaft; we think we have now cut open the vein to its full width, which is about 2 ft. wide, and we are most happy to say that on the north side, as far as we have seen for about 3 ft. in height, there is a nice rib of ore for about 6 in. in width, which is presenting a most kindly appearance; it will take us now some three or four days to square up the cross-cut to the orey part of the vein, as soon as we take it down we shall send a report on the same.

DEVON AND CORNWALL UNITED.—T. Neill, April 28: George and Charlotte: The lode, west of cross-cut, is producing stones of ore—looking promising.—William and Mary: In the 34 east we are driving by the side of the ore. The lode in the 34 west is worth 8 tons of ore per fathom; one stope in the back of this level is worth 3 tons or ore per fathom. The lode in the 22 west is producing stones of ore. The pitch in back of this level is not looking so well now.

EAST CHIVERTON.—J. Grose, R. Southey, April 22: We beg to hand you the following report of the present and future prospects of this mine:—During the past three months we have extended the 25 fm. level cross-cut, north from Bartlett's shaft, 24 fms., through a soft channel of decomposed elvan and light killas; ground very congenial for the production of silver-lead ores. This end is now 47 fms. from the shaft, and has been driven by four men, at 2*l.* per fathom. The 25, on No. 1 lode, has been extended west 29 fms., the last 20 fms. through or just skimming the top of a rich shoot of silver-lead ore, which has been most compact and regular towards the bottom of the level, and it is our firm conviction that this lode will become profitable at the 40. This end is now 49 fms. west from the cross-cut; driven by four men, at from 30s. to 40s. per fathom. The lead we discovered at the boundary shaft was in detached patches in the gossan, altogether unlike the regular leader gone down in the bottom of the 25, as will be seen by the samples sent to the office of the company, which is a beautiful strong lead, but seldom met with at such a shallow depth. At our usual survey, held on the 4th inst., we set Bartlett's engine-shaft to sink below the 25 by nine mem, at 12*l.* per fathom. We intend to sink 15 fms. below the present level, at which depth we expect to intersect No. 1 lode, either in the bottom of the shaft or only a few feet to the north. We shall push down the shaft with all possible speed. The engine, flat-rods, and pitwork are all in good and satisfactory working order.

EAST GUNNISLAKE.—J. Bray, April 30: There is no change in the 36 fm. level cross-cut south. The lode in the shallow adit is 6 ft. wide, composed of spar, mundic, and peach, disseminated with ore throughout—a kindly looking lode. We have sampled 30 tons of ore this day. They are still driving south of the Impham lode.

EAST ROSEWARNE.—Charles Glasson, April 30: In King's shaft, sinking below the 105, the lode is 8 inches wide, producing some splendid stones of copper ore from under the slide, and likely to improve as we get out of its influence. In the 105, west of shaft, the lode is 10 inches wide, and showing signs of improvement; some very good stones of ore have been broken from the back of the end, which is dipping west. In the 105, east of shaft, the lode is 12 inches wide, worth 4*l.* per fathom. In the 95, west of shaft, the lode is 15 inches wide, worth 9*l.* per fathom. In the 95, east of shaft, the lode is 14 inches wide, worth 3*l.* per fathom. In the 85, west of shaft, the lode is 10 inches wide, worth 7*l.* per fathom. We sampled, on Tuesday last, 170 tons of copper ore, of about the usual quality.

EAST SNAEFELL.—Wm. H. Rowe, April 24: At the engine-shaft the work referred to in my last letter will be finished in about a fortnight from this, when we shall again commence to sink. When we have got down a few fathoms it will be necessary to fix plunger-lift, and the present one will be available for the new sinking on the underlie. The 20 fm. level is started 8 feet above the present bottom, and although not yielding ore to value, I think it very likely that the bunch, as it may be termed, immediately below the 15 is dipping northward, and ahead of this driving. The sinking towards a 35 fm. level will be started under very favourable auspices; the width of the lode is as near as possible that of the shaft—8 feet, there are two firm walls, and next the footwall is nearly 2 feet in width of soft sugar-spar and lumps of lead. Looking at the ore in the 15 south appearing to dip fast towards this shaft, the prospects fully justify us in expecting during the next few months a very considerable improvement in the mine. The dressing-floors will soon admit of our preparing the first small parcel of lead for market, probably about 10 tons.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, April 25: Setting Report: The engine-shaft to sink below the 110 by nine men, at 36*s.* per fathom, the month, and 2*s.* 6*d.* in 1*l.* for saving of the copper ore; the lode is nearly 2 ft. wide, and worth fully 4 tons of copper ore per fathom, which we believe to be worth 10*l.* per ton; this is a good lode. This shaft is 3 fms. 2 feet below the 110, and we calculate to sink nearly 2 fms. per month. The 110 to drive east by four men, at 85*s.* per fathom; lode 2 ft. wide, with a little tin; we have about 10 fms. more to drive this level to get under the junction, where we expect to meet with a discovery. The 110 west by four men, at 70*s.* per fathom, and 2*s.* 6*d.* in 1*l.* for copper ore; here we calculate the lode to be worth 7*l.* per fathom. The stope above this level by four men, at 27*s.* 6*d.* per fathom; lode worth for tin and ore 7*l.* per fathom. The 95 east, on the caunter, by four men, at 60*s.* per fathom; and the back at 15*s.* per fathom, and 2*s.* 6*d.* in 1*l.* for saving out of copper ore; here we estimate the lode at 10*l.* per fathom. The rise above this level by four men, at 80*s.* per fathom; lode worth from 15*l.* to 20*l.* per fathom. We are pleased to see this lode in the shaft, which we hope and believe will lead to good results.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, April 29: We have no change to report in this mine from our letter of Saturday. The lode in the shaft sinking below the 110 is looking quite as well as we stated, from which we have broken splendid copper ore. Of this shaft we have an excellent opinion.

EAST WHEAL RUSSELL.—W. Richards, April 29: The lode in the stope, in back of the 77, will yield 4*l.* worth of ore per fathom. The north lode in the 88, east of the cross-cut, is 2 ft. wide, containing capel, quartz, peach, mundic, and stones of ore occasionally. The north lode in the 88, west of the cross-cut, is 18 inches wide, containing flookan, peach, quartz, mundic, and a little copper ore. The north lode in the 100, west of the cross-cut, is 2½ feet wide, and will yield 1½ ton of ore per fathom. The north lode in the 100, east of the cross-cut, is 3 feet wide, containing capel, quartz, mundic, and ½ ton of ore per fathom. The men are getting on tolerably well in the 130 by the side of the run. The south lode, in the 130 east, is 2½ feet wide, and very promising, containing friable qnartz, prian, mundic, and good stones of copper ore. There is no change in the 140, the men having been at the winch assisting the shaftmen in sending the side-lift to surface, &c.

GAWTON COPPER.—G. Rowe, G. Rowe, jun., April 25: The lode in the 70, west from cross-cut, is still showing a very kindly appearance, worth 4 tons of ore per fathom. The part of the lode carried in the 70 east is yielding a little ore, but not sufficient to value. The lode in the 60, east from cross-cut, is looking well, and worth 5 tons of ore per fathom. The lode in the winze sinking below the 60 is showing a very kindly appearance going down, worth 6 tons of ore per fathom for 8 feet long. The drivage of the 50 east is resumed by six men, at 9*l.* per fathom; this point will be pushed with all possible speed to reach the shoot of ore recently discovered in the 60, which appears to be a few fathoms in advance, where a winze will be put through and communicated with the level below, when this ore ground will be properly laid out in sections, to be taken away on tribute, or otherwise, with the greatest economy. The winze sinking below the 36 is for the time suspended, and the men removed to the bottom of the 60 east. The greater portion of the ore ground in the upper level is for the time discontinued on tutwork operations and is offered to be worked in future on tribute.

GREAT NORTH DOWNS.—Wm. Rich, C. Bawden, April 29: We are urging on the sinking of Sleggan's shaft as rapidly as possible, but cannot make the progress that we wish to do; we, however, consider the ground is gradually changing for the better. The lode in the 84, west of King's, is worth 15*l.* per fathom. The lode in the 74 west yields saving work for copper. We have intersected the south part of the lode in the 64 fm. level cross-cut, east of Butler's shaft, which is worth 8*l.* per fathom. We are continuing the cross-cut south by a full set of men. There is nothing new to report in the 64, west of Butler's; we are cutting through the lode, and the capels very hard. The lode in the bottom of Butler's shaft, below the 64, is improving as we sink. We sold yesterday tinstone amounting to 175*l.*

GREAT SOUTH CHIVERTON.—J. Nancarrow, J. George, April 23: The 20 is driven 60 fathoms east of the engine-shaft; the lode has recently become larger, is 3 ft. wide, with less underlie, and more flookan; and the end being now near where the water formerly rose, looks as if it was coming into lead at once. The rise above the 30 is communicated with the 20. The 30 is driven 31 fathoms west of the cross-cut. Since the last meeting we have driven through lead ground for 3 fathoms in length, and the lode gone below the level can be worked to profit. The last few fathoms driven have been poor, but the end is improving, and to-day we have lead in it again, and a very good-looking lode. The lead ground in this level is altogether 13 fathoms long, and it is still extending, and there is every prospect of the 40 being good under it. The cross-cut at the 40 is into the lode, and we have driven westward on it 4 fathoms; the lode looks better than it did at the 30 over this place, and is improving in appearance, and getting softer as we drive. There are 3 fathoms yet to be driven to get under the east end of the lead in the 30; and as it dips west in that level, we may have a little farther still to drive before it is reached in this end. The cross-cut at the 50 is driven 6 fathoms north, and we expect it to reach the lode in two or three months. The 50 is driven east on the south lode nearly 8 fathoms, where it has less underlie, and appears more likely to produce lead than in any other place in the shaft. The ground driven through in the 30 looks very well; from this driving we have a good pile of lead stuff at surface, and the appearance of the lode leaves no room to doubt of its being very valuable in the levels below. The eastern ground, too, is more promising than at any former period, for ends more likely to produce lead than the 20 and 50 cannot be seen. We are pushing on the drivings as fast as possible, and we have no doubt of shortly opening up valuable ground.

GREAT SOUTH TOLGUS.—John Daw, April 29: In the 150, east of Noel's shaft, the lode is producing 2 tons of ore per fathom. In the 150, west of Noel's shaft, the lode is producing 1½ ton of ore per fathom. In the 140, east of Noel's shaft, the lode is 1 ft. wide, producing stones of ore. In the 125 east the lode is 2 ft. wide, producing 1 ton of ore per fathom.

GREAT WHEAL BADDERN.—R. Pryor, H. Tregoning, April 25: Since our last report we have intersected several small branches in the 75 fm. level cross-cut, south of Hill Brothers engine-shaft, letting out a quantity of water, which indicates that we cannot be far from the tin lode. The ground in the end at present is rather spare for driving, owing to being so very wet, and intermixed throughout with cross branches of spar and mundic. The ground in the 75 fm. level, west of the cross-cut, is just the same as when last reported, and the water flowing from the end in abundance. The lode retains its former size, producing lead, mundic, flookan, and spar.

GUNNISLAKE (Clitters).—W. Skewis, J. C. Seccombe, April 29: The lode in the engine-shaft is 4 feet wide, composed of spar, peach, mundic, and copper ore, but not to value. The lode in the 23 west is worth 8*l.* per fm. In the 12 west no lode has been taken down for the past week. The lode in the winze sinking below this level is worth from 8*l.* to 10*l.* per fathom, and in the stope in back of this level it is worth 7*l.* per fathom. We estimate to sample to-morrow 100 tons of copper ore.

GWYDYR PARK.—W. Smyth, April 28: In Gwydyr, driving east, the lode is disordered, though still producing a little lead ore, therefore I put the men to drive west; this end looks more promising, and produces nice stones of lead ore; set 1 fm., to three men, at 5*l.* 10*s.* per fathom. At Gwyn Llifon the men have been engaged during the week bringing the engine to the shaft; the weather being very wet, they could not work much more than half time. We have only three men at Gwyn Llifon at present; they are engaged cleaning boiler, and making a small pond for the use of the engine. I hope the engine will be ready to work by the end of the week.

MAUDLIN.—John Tregay, April 25: In the deep adit level the lode produces good stones of grey copper ore, and is promising well for improvement. The progress made in driving has not been so good as we anticipated, in consequence of our having had to renew some of the timber in the old level. This is now pretty well secured.

MINERA UNION.—W. T. Harris, April 30: Low's shaft is now 8 yds. below the 40 yards level; the lode still maintains its promising appearance, and yields good stones of lead. The ground is easy for progress. The lode in the 40 north is 2 ft. wide, composed of carbonate of lime slightly mixed with lead.—Williams's Shaft: The lode in the 40 yard level north is 2 feet wide, and worth 15 cwts. of lead per fathom. The pitch in the back of this level is worth 12 cwts. of lead per fathom.—Brabner's Shaft: The pitch in the back of the 80 yard level south is worth 15 cwts. of lead per fathom. All the other pitches in the mine are just as last reported.

MONTGOMERYSHIRE LEAD AND BARYTES.—Wm. Hancock, April 30: The 30 east, under adit, is let to drive at 5*l.* per fathom, 20 fathoms stent, the men to tram and fill stuff at the above price. In the 10, above adit, we have four men clearing and securing the level on the Bryntail lode; we have about 4 fms. more to clear, when we shall commence raising lead; the lode at this point is worth from 1 to 1½ ton per fathom. We are putting in a hand-pump, to enable us to prove the ground in the winze in the 10, under the barytes. All surface operations are progressing satisfactorily.

MOUNT PLEASENT.—Wm. Wasley, April 30: Very good progress is being made in driving the 120 yard level cross-cut, north of Jenkin's shaft; the ground in the end is without any alteration to notice since my last report. The tributers working near Bright's shaft have got more ore than usual this week, and the pitch is looking very kindly.

NANGILES.—J. Rowe, J. Rowe, jun.: The engine-shaft is sunk 2 fms. below the 130 fm. level; the lode is 4 ft. wide, composed of quartz, mundic, and spots of ore; it is a very promising lode. The shaftmen (12 in number) are now engaged in cutting a cistern plat in the 130 fm. level, in order to fix a 10-in. lift; this will take about a fortnight. We shall then resume the sinking with all speed. The 130 fm. level west is driving by six men, at 7*l.* 10*s.* per fm.; the lode in this end has been poor for 2 fms., but is now very much improved in appearance, and is worth 1 ton of ore per fm. As we are just entering the dip of the ore gone down in the bottom of the 120 fm. level, we are fully expecting an improvement in the 130. About 10 fms. before the 130 end we have a winze sinking below the 120 fm. level, by four men, at 7*l.* per fm.; the lode for the length of the winze (9 ft.) is worth 17*l.* per fathom. The 120 fm. level is driving west, by two men and two boys, at 6*l.* 10*s.* per fm.; the lode is 3½ ft. wide, with good stones of ore—a kindly lode. The 130 cross-cut is driving north, by nine men, at 14*l.* per fm.; we expect in about three months that we shall intersect one of the Consols lodes.

NEW CLIFFORD.—J. Michell, April 30: Our underground operations are being pushed on as fast as possible. In the cross-cut driving south of Holland's engine-shaft, at the 50, we have within the last 2 or 3 ft. cut a very large stream of water, and the stratum, elvan, appears to be breaking up, being jointed with faces of rich yellow copper ore; no doubt we are getting very near the Penstruthal lode, and my firm belief is, when intersected, it will be found rich. In the cross-cut driving north of shaft, in the 50, we are in the killas, of a lightish colour and very congenial character for copper ore to live in. We have 9 or 10 fms. more to drive in this cross-cut before we reach the No. 3 lode. We are fast approaching some important points, which must come off at an early date. Our engine and pitwork are in first-class order, and the former continues to work exceedingly well.

NEW CROW HILL.—W. Trelease, April 28: There is little or no difference in the ground in the winze below the 70 since last week; the water is a little on the increase, which retards the sinking as the winze gets deeper. We have still a good lode in No. 2, but not so good as it was; worth now in places 35*l.* per fm.—Wheal Louisa: The ground in the shaft has come in harder this last week, but it may not be a very thick run; it seems to be a kind of gritty capel, of a light colour; we are not yet through it, and do not know how thick it is; it is strongly charged with water. The lode in the 60 east is still 5 ft. wide—a body of mundic, quartz, white iron, &c., with a little lead, not to value, and the end very wet. A cargo of 90 tons of mundic was shipped at Par on Thursday last for Swansea, and I suppose over 20 tons still lies there on the quay. Our little parcel of lead was carried off the mine on Saturday last, and the weight thereof at the smelting works was 14 tons 3 cwts. 1 qr., which realised 363*l.*, the price being 25*l.* 13*s.* per ton. We have now plenty of beautiful rain here, and our water so far keeps up well.

NEW GREAT CONSOLS.—R. Pryor, R. Trathen, April 27: During the past week we have not made much progress in forking, owing to the 75 plunger-pole having failed under water, and since which the bucket-rods have divided in the left, causing a little further delay. Ellis's shaftmen are at present busily engaged in sending down the 19-inch pitwork to the 64, which has been pushed on with all speed, so that no time will be lost in reaching the 75. Should things go on as we expect we hope to be able to set several more tribute pitches on Saturday week. The engine continues to work well.

NEW TRELEIGH.—Samuel Michell, April 25: We set to-day the rise in the back of the 70, to three men and three boys, at 3*l.* 5*s.* per fathom, 4 fathoms, or hole to the 60; this work I hope to accomplish in three weeks, after which, according to the appearance of the lode, we shall be in a position to raise ore; also a bargain to drive on the south part of the lode, in the 60, over the before-named rise, at 3*l.* per fathom, by two men; it is producing a little ore, and discharging a good deal of water. The men sinking the new shaft below the 70 have not completed their contract. The ground below the slide has become much harder than it was in or above the slide, and, judging from the appearance of the lode in the bottom of the shaft, it is far more congenial for ore. The shaft is down about 4 fathoms below the 70. There is not the least symptom of the slide to be seen below that level, so far as we have gone, neither do I think we shall see any again. The lode now forms a strong capel, which is a good indication for ore; in fact, the lode is producing more ore, and presenting a much better appearance than it has for the last 16 fathoms.

NEW WHEAL LOVELL.—C. Bawden, J. Priske, April 30: The lode in the 40 east still continues as good as ever, worth over 100*l.* per fm.; the last 8 feet driving has turned out 2½ tons of tin. The lode in the 30, driving east to come over this bunch, has greatly improved, and is now producing fine stones of tin.

NEW WHEAL TOWAN.—Richard Pryor, April 29: Within the last two or three days we have intersected a small cross-course in the adit level driving west, which has heaved the lode north, and the men are now engaged in driving in that direction, in order to meet with the same west of the cross-course.

NORTH DOWNS.—Francis Pryor, John Grenfell, April 28: In the 60 west the lode has again fallen off in value a little—now worth 16*l.* per fathom, but from the general appearance of the north wall of the lode we are of opinion the falling off is only temporary. Two stopes in the back of this level are each worth 12*l.* per fathom. A stope in the back of the 50 is worth 10*l.* per fathom. The rise in the back of this level is worth 6*l.* per fathom. The 50 west, from point of horse, is not looking so well as it was, now worth 6*l.* per fathom. The winze sinking below this level (the 50) is worth 7*l.* per fathom, and looks as if it will soon further improve. In the 40 west we have intersected the south part of the lode, the same that the rise in the back of the 50 is on, and commenced driving west on it, where the lode is worth 5*l.* per fathom. There is no change to notice in any other part of the mine since last report.

NORTH POOL.—J. Vivian and Son, F. Clymo, April 29: We have commenced driving the cross-cut at the 40 to communicate the level driven on Ballarat lode with that driven on the middle branch. We have about 5 fathoms to drive to effect the communication, and by driving from both levels at the same time hope to communicate in a month, the rock being favourable. The mine will then be in a much better position for developing the ore ground already discovered on the main lode at the 40 than it has ever been in before, as well as for driving the said level west to the junction of the two principal lodes, which is now close at hand. In the stope at the 40, west of sump, on main lode, the lode is yielding 2 tons of very good yellow copper ore per fathom. In the stope, east of sump, the lode is much improving in going below the 40, and now yielding about 3 tons of yellow copper ore per fathom. This improvement promises to enable us in a short time to meet our expenditure without making any further calls on the shareholders, and looks like the commencement of one of those great deposits of copper ore which have given such rapid and large profits in the eastern part of this mine, and other mines adjoining.

OLD GUNNISLAKE.—H. Rickard, April 29: Our progress in clearing the different levels south on the Green lode, during the past week, has been very favourable. I have put some men to clear out and break some of the lode in the bottom of the 81, preparatory to letting some tribute pitches at our next setting-day. I believe I shall be able to go up to Susan's shaft by the end of this week. From what I can see to-day we shall raise some ore from the middle lode. The engines are working well.

OLD WESTMINSTER.—A. Ede, April 29: The lode in the 92 east is looking better, composed of quartz, blende, and a little lead ore, not yet of any value. The pitch in back behind the end is producing 12 cwts. of lead ore per fathom. The lode in the Bramnock sump, east of the engine-shaft at the 65 fm level, is improving, now worth 1½ ton of lead ore per fathom. The men have this week been cutting ground and hanging tackle on No. 4 winze, so very little has been done here in sinking. The lode in the pitch east of No. 1 sump is producing 1 ton of lead ore per fathom. No other change.

OKEL TOR.—John Rodda, April 29: The ground in the 80 is all that can be desired for the production of copper ore, but as yet we have not reached the lode the winze is sinking on below the 65, and the reason of our not doing so is that the lode had a greater underlie in the winze than at any other place seen in the mine, but every effort is being used to reach the desired object as quickly as possible. The 65, west of Hele's winze, is opening good ground for stopes. The lode in the present end is worth 3 tons of ore per fathom. The stopes in back of this level are not looking so well as they have been, but I think they will soon improve again. The three now working will yield on the average 3 tons of ore per fathom. The winze sinking in bottom of the same level is down 6 fms., and the lode in the bottom is still a good course of ore, and yielding quite as much ore as stated in previous reports—11 tons per fathom for its length, 12 ft. The water is increasing, which somewhat retards our progress in sinking. The 65 east is without ore to value. There is a large portion of the lode standing on the north side of the level, which we intend to cut through next month, to ascertain its value. The stope in the bottom of the 50, west of the eastern cross-cut, will yield 4 tons of ore per fathom, and the stope in the back of this level, west of Bickle's cross-cut, will yield 2½ tons of ore per fathom.—North Lode: The stope in back of the 80, west of Reynolds's winze, will yield from 2 to 3 tons of ore per fathom. The cross-cut south, at the 65, is through the north lode, and in the present end the ground is moderately easy for driving. The stope in back of the 65, west of footway winze, will yield 3½ tons of ore per fathom.

PEDN-AN-DREA UNITED.—W. Tregay, J. Thomas, E. Chegwin, April 25: Sump: The lode in the 140 west end is worth 12*l.* per fathom. The lode in the 130 west end is worth 6*l.* per fathom. The lode in the 120 west end is worth 25*l.* per fathom. We have set a winze to sink in bottom of this level, where the lode is worth 20*l.* per fathom. The lode in the 100 east rise is worth 10*l.* per fathom.—Cobbler's Shaft: the lode in the bottom of this shaft has improved in appearance, worth 8*l.* per fathom. The lode in the 110 east is not yet intersected; the ground is favourable for cross-cutting. We expect that we have 3 or 4 feet further to cross-cut. The lode in the 110 west is worth 10*l.* per fathom. We sold on Thursday last 9 tons 0 cwts. 2 qrs. 26 lbs. of black tin, for 508*l.* 19*s.* 3*d.* There is nothing new to report in the 130 east, or any further changes in any other part of the mine, this week.

PENHALLS.—S. Bennetts, Wm. Higgins, April 24: There is not much alteration to notice in the mine generally since the meeting, on Tuesday last, except in the 50 west, on the new lode, which has been cut on the west side of the cross-course referred to in the quarterly report, and which is of a promising character, worth 10*l.* per fathom; the heave was about 4 ft. north. The forking from the Pink Mine was resumed yesterday, and the whim-engine set to work to-day—in excellent order. The next few days will be occupied in removing the whim-cage from the stamping to the drawing-engine, fixing pitwork, &c., below the 60, in the engine diagonial shaft.

PENHALE UNITED.—R. Pryor, H. Bennetts, J. Pryor, April 29: Phillips's Engine-shaft: This shaft is now being drained and cleared to the 80, and the men are engaged in making the necessary preparations, in order to drop the lift below this level, which we hope will be completed and the mine drained to the bottom in about four weeks from this time. Morcom's shaftmen are making good progress, and the shaft will be completed to the 50 in about a week's time, which will be pushed on with all possible speed, in order to reach the 80. All our work, both at surface and underground, is going on very satisfactorily, and we are getting on as fast as possible with the dressing of the lead. All the machinery continues to work well.

PRINCE OF WALES.—J. Gifford, W. Gifford, April 27: On Saturday last the following bargains were set:—To drive the 65 by six men, stent 2 fms., at 10*l.* per fathom; here the lode is 1½ ft. wide, composed of capel and quartz, with mundic and copper ore intermixed, but as yet not enough to value. To drive the 65 west by six men, stent 2 fms., at 10*l.* per fm.; here the lode is at present disordered. To drive the 55 east by six men, stent 2 fathoms, by the side of the lode, at 6*l.* per fathom. We have holed the winze in the 45 east to the 55. To drive the 55 west by six men, stent 6 ft., or cut the cross-course, at 12*l.* per fm.; the lode is worth 8*l.* per fm. The stope in the back of the 55 east, by six men, stent from the back of the 55 to the bottom of the 45 for about 7 fms. in length, at 2*l.* 15*s.* per fm.; the lode is worth 30*l.* per fm. No. 1 stope, in back of the 55 east, is worth 20*l.* per fathom. The stope in back of the 55 west, by six men, stent the month, at 2*l.* 15*s.* per fm.; the lode is worth 25*l.* per fm. The winze in the 45 west by four men, stent 2 fms., at 8*l.* per fathom; the lode is worth 15*l.* per fathom. To sink new shaft by six men, stent the month, at 13*l.* per fm. We are getting on well with our sampling, and hope to sample about 1000*l.* worth of copper ore on Friday next. We have also set two tribute pitches in back of the 45; one to three men in the 45 east, at 6*s.* 8*d.* in 1*l.*, and 12*s.* 6*d.* per produce. Another in the back of the 45 west, by two men, at 8*s.* in 1*l.*, and 12*s.* 6*d.* per produce, for two months each.

PRINCESS OF WALES.—G. Rickard, April 30: We are pushing on with the driving of the north adit level cross-cut towards Prince of Wales main lode with all possible dispatch; the ground therein is favourable for driving, and good progress has been made.

REDMOOR.—T. Taylor, April 30: We have no change in the south part of the mine to notice. We have nine men cutting the old level wide and high enough for a tram from the shaft to the lode; we have completed 28 fathoms, and hope to finish this week. We have also erected a horse-whim for hauling the tinstuff to surface.

PROSPER UNITED.—J. Nicholls, April 30: The 100 east is producing saving work for tin. The 100 west is unproductive. The 100 stope is worth 8*l.* per fm. for tin. The winze in bottom of the 90 is worth 8*l.* per fathom for copper and tin. The 90 stope is worth 5*l.* per fathom. The 80 west is looking rather better, now worth 7*l.* per fathom for tin and copper. The stope in back of this level is worth 5*l.* per fathom. The 70 east is worth 6*l.* per fathom for copper ore. The 60 west is producing occasional stones of grey ore; lode small. The stopes in back of this level are worth 5*l.* per fathom. The cross-cut south, at the 50, has passed through the Moor lode; it is small and poor. The winze in bottom of the 50 east produces 1 ton of ore per fathom. The 50 west, on Pope's lode, is worth 5*l.* per fathom for tin. The 50 east, on Pope's lode, is worth 6*l.* per fm. for tin. The 40 west is unproductive. The stopes in back of this level are worth 5*l.* per fathom. The 25 east is unproductive. The 25 stope is worth 4*l.* per fm. The stopes in back of the 70, east of Hoskings's, are worth 8*l.* per fathom. There is no other change to remark on.

ROARING WATER.—H. Thomas, April 28: The cross-cuts north and south from Gillman's shaft are progressing favourably. The south is getting very wet, and the rock jointy, which may be considered a favourable indication. The rock in the north end is highly mineralised, and containing ribs of yellow copper ore, which I consider is very encouraging for a productive lode when intersected. The ground is about vertical in both ends.

ROSECLIFF AND TOLCARNE.—Rich. Pryor, April 29: The ground in the 50 east, towards the old mine, is very spare for driving, in consequence of the ground being composed principally of spar, which is letting out a quantity of water. No. 4 lode, in this level, east of cross-cut, is getting larger and more defined, being full 2 feet wide, composed of flookan, mundic, spar, blende, and spots of lead. The lode in the winze sinking below the 30 is 2½ feet wide, the eastern end of which is producing some good lead.

ROSEWARNE CONSOLS.—J. Nancarrow, R. Knuckey, April 28: We have a most important discovery on the caunter lode in Sarah's shaft; the lode has recently contained a little native copper, but nothing very good up to last night, when we got into some rich grey copper ore, and the lode in the shaft to-day is worth 20*l.* per fathom. The value of this discovery will be seen when it is connected with the facts that we have ore ground from this shaft 30 fathoms eastward, that we are sinking it for 3*l.* per fm., and that it is not yet 40 fms. from surface and going down in whole ground. Other places in the mine are just as last week.

ROYALTON.—Thomas Parkyn, April 30: All things are going on well. We are making good progress at the 25. We are laying open immense quantities of rich tin ground to be taken away at this level at good profits. We have the best work at the 25 for tin that I ever saw in the mine. We are still driving west on the lode, and every fathom we drive the lode is improving in value. Next month I shall put the men to put up a rise to the 15, so that we shall have good ventilation, when we shall at once commence stoping. We are in about 6 fms. in the lode, or about the middle of it, it being 12 fms. wide. The 15 is opening up well, and we shall raise about 4 tons of tin from that level this month, which, I am pleased to say, is very satisfactory. The open cutting is looking well for tin, and there will be a good profit realised this month over the cost, and this profit can be considerably increased, and you have a lasting and valuable mine.

SORTRIDGE CONSOLS.—R. Jackson, April 30: Hitchins's engine-shaft is down 7 fathoms below the 140; the ground is favourable for sinking, and congenial for mineral. In the 140, east of the engine-shaft, the lode is 2½ ft. wide, composed of spar, prian, mundic, and good stones of copper ore, and looking very promising.

SOUTH CONDURROW.—J. Vivian and Son, W. Williams, April 25: King's shaft is now 4½ fms. below the 82, and the main part of the lode standing to the south. In the 82, east and west, there is no alteration to remark on since last report. In the 71 east and west there is nothing requiring particular notice. In the 61 fm. level cross-cut north, east of King's shaft, the ground continues as favourable as when last reported on, and no lode has yet been met with. In the 61 west the lode is 2 feet wide, and producing a little tin. In the 51, west of Vivian's shaft, the lode is 3½ ft. wide, composed principally of chlorite and mundic, containing a little copper ore. The stope in the back of the last-named level is producing 1 ton of ore per fathom.—Middle Lode: In the 20 east the lode is producing tin worth full 5*l.* per fathom, and opening tribute ground.

SOUTH DARREN.—J. Boundy, Wm. H. Boundy, April 25: Setting Report: The 70 to drive west, by six men, at 9*l.* per fm.; the lode is 20 in. wide, and has a very promising appearance. The 60 to drive west, by six men, at 10*l.* per fm.; the lode is 3 ft. wide, and worth for lead and copper 30*l.* per fm. To stope the back over the 60 west, by eight men, at 80*s.* per fm.; the lode is 3 ft. wide, and worth for lead and copper 18*l.* per fm. The 50 to drive west, by six men, at 7*l.* 15*s.* per fm.; the lode is 15 in. wide, producing a little lead and copper, but not to value. To stope the back over the 50 west, by four men, at 80*s.* per fm.; the lode is 2 ft. wide, and worth for lead and copper 12*l.* per fm. To stope the back over this level (the 50 west), by four men, at 80*s.* per fm.; the lode is 2½ ft. wide, and worth for lead and copper 11*l.* per fm. To stope the back over the 40 west, by six men, at 80*s.* per fm.; the lode is 3 ft. wide, and worth for lead and copper 16*l.* per fm. To stope the bottom of the 40 west, by six men, at 85*s.* per fm.; the lode is 3 ft. wide, and worth for lead and copper 14*l.* per fm. To stope the back over the 30, by two men, at 75*s.* per fm.; the lode is 2 ft. wide, and worth for lead and copper 9*l.* per fm. The 30 to drive on a branch north of west, by four men, at 7*l.* per fm.; the branch at this point is 6 in. wide, containing a little lead and copper, and looks promising. The shallow level to drive east, by two men, at 7*l.* per fm.; the lode is 15 in. wide, composed of blue killas, sulphur, and spots of copper ore, the appearance of the lode being favourable. All surface operations are progressing satisfactorily.

SOUTH HERODSFOOT.—W. Goldsworthy, April 30: The engine-shaft is in regular course of sinking below the 86, the ground is still favourable, and good progress is being made. The engine and pitwork are in good order, and now working well.

SOUTH TREVENNA.—W. H. Willcock, April 29: The No. 2 lode is looking as well as last reported, but cannot make much progress till the company put up efficient stamps and floors, as we are so often obliged to throw out of gear the stamping-power attached to the present wheel, in order to keep the mine in fork.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, April 25: Setting Report: The engine-shaft to sink below the 30 by nine men, at 80*s.* per fathom, the month extent; here we have just met with a hard elvan crossing the shaft, which we hope may not continue long; the lode is 15 in. wide, and principally composed of quartz.

ST. JUST AMALGAMATED.—R. Pryor, Wm. White, R. Wearne, April 28: Western Mine, Saveall's Lode: The shaftmen are still engaged in making the necessary preparations—putting in cistern, fixing tackle, &c., preparatory to sinking the engine-shaft below the 100 fm. level. The lode in the 100, east of engine-shaft, is worth 5*l.* por fathom. The lode in the 90 east is worth 6*l.* per fm. In the 90 west the lode has improved, and is now worth 4*l.* per fathom. The lode in the 76 west is worth 5*l.* per fathom. The lode in the winze sinking below the 62, west of shaft, is worth 6*l.* per fathom.—Owl Lode: The lode in the 40, north of Reddipper shaft, is worth 5*l.* per fathom. The lode in the 20, north of shaft, is worth 7*l.* per fathom. The lode in the 10 north is worth 12*l.* per fm. The lode in the 20, south of Saveall's lode, is worth 4*l.* per fathom. All other parts of the mine are without change to notice.

SUMMER HILL.—W. Wasley, April 30: Last Saturday I set the south-west level, on the ore course, to six men, to drive 5 yards, at 40*s.* per yard, and 20*s.* per ton for ore, the men to pay all cost for drawing, &c. The plat in the end is for the present close and poor, but I think from indications that we shall have an improvement shortly. I have put the men that were driving the cross-cut from the ore course to drive the cross-cut in an opposite direction, or south of the ore course, and am glad to say that we have met with some good lumps of ore, which may lead us into a bunch. We are getting some nice lumps of ore in driving the level east of the cross-cut, north of Hale's shaft, and the plat in the present end is looking very favourable for the production of ore.

TAMAR VALLEY SILVER-LEAD.—John Goldsworthy, April 30: In the 20, driving south of shaft, the lode is 2 ft. wide, composed of capel, quartz, fluor-spar, prian, and mundic, producing occasional stones of silver-lead ore—most promising lode, with an increase of water. In the 10, driving south of shaft, the lode is ½ ft. wide, composed of fluor-spar, prian, mundic, and silver-lead ore, producing saving work—a fine, healthy lode, with an increase of water. At this part of the mine the water having so much increased for horse labour, we deem it prudent to suspend operations in the 20 and 10 for the present, and remove the men to hasten on the work necessary in connection with the erection of the engine, from which a line of rods can be carried to the present shaft for pumping, which will effect a great saving; or a cross-cut can be put out east in the 54, in the old mine, which will intersect the lode full 3 fms. deeper, and about 100 fms. further south, and no doubt drain the present workings. The clearing of the adit in the old mine is progressing satisfactorily, and all surface operations.

VIGRA AND CLOGAU.—Wm. J. Holman, April 30: The lode in the bottom of No. 5 shaft, under No. 2 adit, No. 2 mine, has during the past week yielded a few stones containing visible gold; the lode is now from 4 to 5 ft. wide, and looks well. In the drivage east from No. 4 shaft the lode is 2½ ft. wide, and is still enlarging and improving as we go forward. The lode in the top of the rise over the back of No. 1 level is 4 ft. wide, but at present it is rather poor. In the end of the drivage east from No. 1 shaft the lode is 3½ ft. wide, and has slightly improved in appearance. At the Vigra and old Clogau Copper Mine the works are being carried forward without any change. At the reduction works we have a full supply of water, and all the machinery is at work.

WEST BASSET.—G. Lightly, April 29: Grenville's Shaft: In the rise in the back of the 154 east the lode is now yielding 1½ ton of ore per fathom. In the rise in the back of the 144 east the lode is yielding 2 tons of ore per fathom. In the 144 west the lode is yielding 2 tons of ore per fathom.—Thomas's Shaft: In the 75 east, on the middle lode, the lode is yielding 1 ton of ore per fathom. In the 65 west, on Hambly's lode, the lode is worth 8*l.* per fathom for tin. Our sampling of copper ore to-day is computed at 227 tons.

WEST GREAT WORK.—S. J. Reed, April 29: The great north lode in the 50 has improved in appearance both east and west; in the former end it is 2 feet wide, worth 5*l.* per fathom, and the latter producing fair quality tinstuff for the stamps. The lode in the 40 east is now worth 11*l.* per fathom, and lode larger. In the rise and stopes in back of this level the lode is worth on an average 8*l.* per fathom. In the 30 we have intersected a branch of the great north lode in the cross-cut north; it is producing rich stones of tin, and expect to cut the main part in a short distance further driving. The stope in back of this level is worth 6*l.* per fathom; stoping at 18*s.* per fathom. As Watson's shaft will be completed to the 20 fm. level in a few days, we have resumed driving both east and west at that level. A stope in back of this level is worth 7*l.* per fathom. In the 8 fm. level, at Watson's, the lode is 2½ feet wide, worth 15*l.* per fathom. In the adit, east of said shaft, the lode is worth 4*l.* per fathom, and the stope in back of level, 12*l.* per fathom. Harvey's shaft is being sunk from surface (down 10½ fathoms), at 20*s.* per fathom, and 10*s.* tribute; the lode here is 1½ foot wide, and has a promising appearance. Seven pitches are being worked, at tributes varying from 6*s.* to 13*s.* in 1*l.*

WEST MARIA AND FORTESCUE CONSOLS.—Wm. Skewis, Jas. Donnal, April 28: The men from the 20 east, on Capel Tor lode, are required at surface for a short time, to take out ground for foundation of new engine-house, on the completion of which they will again employed in the driving of this level east. The men from the pitch in the back of this level are removed to a pitch in the back of the 50, on the same lode, at 12*s.* in 1*l.*—West Maria Lode: The 60 east has been driving by the side of the lode for this month, which we have now commenced to take down, and shall be able to give its size and value in next report; when last taken down it was worth 10*l.* per fm. That part of the lode we are now carrying in the 50 east is 4 ft. wide, worth 35*l.* per fm. The lode in the new stope, in the back of this level, is worth 20*l.* per fm. In the No. 2 winze, sinking below the level, the lode is worth from 8*l.* to 10*l.* per fm. The stopes in the bottom of this level are worth as follows:—No. 1, 7*l.* per fm.; No. 2, 8*l.* per fm. The 40 east has been driven about 2 fms. by the side of the lode, and the stuff is now being cleared as quickly as possible, in order to take it down, which we hope to complete by the end of this week, the result of which we will at once advise you The lode in the stope in the bottom of this level is worth 7*l.* per fm. The sinking of the new shaft is progressing favourably.

WEST PRINCE OF WALES.—W. C. Cock, April 28: In cutting ground for cistern, &c., at the north engine-shaft we find a part of the lode standing in the footwall, about 2 feet thick, consisting of a mixture of capel, iron, and killas, which, with the part before carried, makes the lode about 3 feet wide; I shall have the side cut a little further, and see if there is any more lode. The part of the lode containing spots of copper ore, in the south engine-shaft, to which reference has been made in my recent reports, is gone down more perpendicular, and I, therefore, cannot say anything more about it for the present. The ground continues favourable for sinking.

WEST ST. IVES.—T. Uren, April 29: The lode in the end, west of cross-course, is looking well, producing rich stones of copper and tin; it has improved ever since cut west of cross lode, and has every appearance of turning out a large quantity of mineral as we drive into the hill.

WEST TOLGUS.—April 29: Taylor's engine-shaft is cased, divided, and skip-road fixed from the 85 to the 95, penthouse put in at the 95, and we hope in a week from this time we shall commence sinking the engine-shaft below the 95. The lode in the 95 east is looking well, yielding fully 8 tons of ore per fathom, worth 40*l.* per fathom; we commenced driving east yesterday. The lode in the 95 west is 4 ft. wide, producing 6 tons of ore per fathom, worth 36*l.* per fathom, a beautiful lode. The lode in the 85 east is looking better than for some time past, and is kindly for improvement, now yielding 3¼ to 4 tons of ore per fathom, worth 16*l.* per fathom. The lode in the 85 west is large, but poor. We have four stopes over the back of the 85 working by 24 men, at an average price of 3*l.* 10*s.* per fathom; three of these stopes are yielding 4 tons of ore per fathom, and one is producing 5 tons per fathom. The lode in the 75 west is 4 ft. wide, producing stones of ore, and has a very promising appearance. The lode in the 65 west has not been taken down since last reported. In the 50 west the lode is 20 in. wide, producing good stones of ore, and letting out much water—a promising looking lode. We have two stopes over the back of the 75 west working by eight men, worth on an average 15*l.* per fathom. The lode in Richard's shaft is over 2 ft. wide, producing good stones of ore, and looking promising for improvement; ground good for sinking, and no water.

WEST WHEAL TREMAYNE.—S. Roberts, April 29: We are getting down with the shaft with all the speed we can make; it is now down nearly 4 fathoms. We sampled the ore yesterday at Messrs. Harvey's wharf, at Hayle. No. 1 parcel, 11 tons; No. 2, 6 tons. The samples and all particulars you shall have as soon as we get them tried.

WHEAL AGAR.—E. Rogers, April 29: Setting Report: The flat-rod shaft to sink below the 150, by twelve men, at 45*l.* per fathom; the ground is very hard, now down 12 fathoms under the level. The 150 to drive east of the said shaft, by four men, at 8*l.* per fathom; the lode in the end is 3 feet wide, worth 6*l.* per per fathom, and letting out a large quantity of water. A cross-cut to drive north, in the 150, by two men, at 6*l.* per fathom. The 140 to drive east, by two men, at 7*l.* per fathom; the lode in this end is 2½ feet wide, spotted with copper ore, and a little tin, but not of much value, although a kindly lode. The engine shaftmen have a contract to sink 5 fathoms, or cut the lode, by six men and three boys, at 33*l.* per fathom. The 110 to drive east of engine-shaft, by two men, at 5*l.* per fathom; lode unproductive. We have four men working the back of the 150, at 9*s.* in 1*l.*; and two men in the back of the 140, at 12*s.* in 1*l.* Also two men working the bottom of the 100, east of engine-shaft, at 13*s.* 4*d.* in 1*l.*

WHEAL AGAR.—E. Rogers, April 30: We have cut into the lode in the engine-shaft, and opened it for 2 ft. wide; we cannot tell the size of it, as we have not yet reached the south wall. A sample of the part cut into has been assayed, which produces tin, but not rich. It will take three or four days to open it, so as to prove its size and value.

WHEAL BULLER.—F. Pryor, J. Brown, April 29: Stevens's Shaft: The 92, on the south part of the lode, is worth for tin 22*l.* per fathom. The 80, east of this shaft, is unproductive. The stope under this level is suspended. No. 1 stope, in the back of this level, is worth 18*l.* per fathom. The stope under this level, west of the shaft, is worth 20*l.* per fathom. The stope in the bottom of the 70, west of Hocking's cross-course, is worth 15*l.* per fathom. The stope in the bottom of the 70, west of Beard's winze, is worth 10*l.* per fathom. The 80, east of Hocking's, is producing stones of tin. The 80, east of Hocking's, on the south lode, is producing stones of copper ore. The stope in the bottom of the 60, west of Knuckey's winze, is worth 11*l.* per fathom. The stope east of this winze is worth 13*l.* per fathom. The 50, east of Stevens's, on the north branch, is worth 7*l.* per fathom for copper ore. No other change in the mine to notice.

WHEAL CREBOR.—J. Gifford, April 28: In the 120 west, driving by the side of the lode, the ground is still favourable for progress, and strongly mineralised, and producing rich stones of copper close under the lode. In the 120 east we have not yet intersected the lode east of the cross-course, but are daily expecting it. In the 96 fm. level cross-cut south the ground is much improved for driving, and occasional stones of copper ore are met with in the cross-course, which induces me to think the lode is not far off. The tribute pitches are yielding their average quantity of ore, and the men getting wages. We shall sample, on Friday next, about 75 tons of copper ore, of about the usual quality.

WHEAL FRIENDSHIP.—April 27: Bennett's Lode: The lode in the 170 fm. level, west of flookan cross-course, is 2½ ft. wide, composed of spar, mundic, prian, and copper ore, producing of the latter about ½ ton per fathom. The lode in the winze sinking under the 150 is 2 ft. wide, producing a little ore, but not to value. The lode in the 150, west of Whitburne's cross-cut, is from 2 to 2½ ft. wide, composed of spar, mundic, lead, and copper ore, producing ½ ton per fathom. A stope in back of the 150, and one in bottom of the 140 fm. level, will yield 1 ton of ore per fm.—Main Lode: The stope in bottom of the 70 will yield 1 ton of ore per fm. Two stopes in back of the 70 will average 1½ ton of ore per fm. The lode in the winze sinking under the 40 is 2½ ft. wide, and will yield 1 ton of ore per fm.; we expect to communicate with the stopes in back of the 70 this month. We set six pitches on Saturday last, at an average tribute of about 12*s.* in 1*l.*—Glebe: In the cross-cut driving south from Curtis's shaft, in the 80, we have cut through the branch mentioned in our last report; it is about 8 in. wide, and will yield ½ ton of good ore per fm. We intend driving the end further south, as we have a chance of cutting more branches.

WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, April 30: There is no particular change to notice in this mine since our last report. At the 120 the men are stripping down the granite between the two lodes. They have not broken any of the leading or rich part of the lode since Saturday, which continues to produce rich tin; so far as opened east it will average 10 in. wide, and produces, from an assay made to-day, 21 per cent. for tin. We think the tutwork places have a little improved. We hope to write you more fully on Saturday.

WHEAL KITTY (St. Agnes).—W. Polkinghorne, S. Davey, April 24: In the 82, driving west of Holgate's shaft, the lode is 2 ft. wide, and producing good saving work for tin.—New Shaft, Pryor's Lode: In the 94, driving south of shaft, we have met with a hard capel; from this we think the lode is very near. In the 82, driving east of this shaft, the lode is 2 ft. wide, and worth for tin 8*l.* per fathom. In the 12, driving west of shaft, the lode is 4 ft. wide, and worth for tin 15*l.* per fathom. In the 65, west of shaft, the lode is 18 in. wide, and worth for tin 6*l.* per fathom. In the 44, driving east of shaft, the lode is small, and not to value.—Caunter Lode: In the 82, driving north of Pryor's, the lode is producing good work for tin, and we think in a little further driving there will be an improvement.—Vottle Lode: In the 24, driving east of cross-cut, the lode is 2 ft. wide, and worth for tin 5*l.* per fathom.

WHEAL KITTY (Uny Lelant).—Wm. Rosewarne, April 30: South Russoc Lode: The lode in the boundary shaft, sinking below the 40, is worth for the length of the shaft (9 feet) 9*l.* per fathom. The lode in the 40 fm. level end, east of the shaft, is worth 5*l.* per fathom. The lode in the 40 fm. level end west is worth 4*l.* per fathom. The lode in the 40 fm. level end, west of winze, is worth 5*l.* per fathom.—North Russoc Lode: The lode in the 150, east of Bolitho's winze, is worth 4*l.* per fathom. The lode in Bolitho's winze, sinking below the 150, is worth for the length of the winze (9 feet) 9*l.* per fathom. The lode in No. 4 winze, sinking below the 140, is worth 4*l.* per fathom. The lode in the 110, east of cross-cut, is worth 8*l.* per fathom.—New Lode: The lode in the 140, east of cross-cut, is producing stamping work.

WHEAL MARY FLORENCE.—W. Verran, W. Johns, April 29: Our progress in sinking Saw's shaft is not so rapid as we could desire, in consequence of the continued hardness of the ground, principally capel and spar, but although it somewhat retards our progress, we are of the opinion it is connected with the deposit of mineral, and will lead to good results. In driving west by the side of the copper lode at the 15 we are highly pleased with appearances, and believe we are opening out productive ground, which after communicating with the deep adit level, 15 fathoms above, can be taken away to advantage; we have cross-cut the lode a little behind the present end, and find it to be over 6 feet wide, from which we have drawn to surface some very good work, and shall soon resume dressing. We are now preparing shaft-rods, as well as bearers and cistern, so as to heave over the present lift at the 15, and fix a sinking-lift below that level, and it is our decided opinion that at the depth of the next level we shall have a much more productive lode than we have at the 15, and at no distant date have a remunerative mine.

WHEAL SPARNON.—Wm. Tregay, April 25: Belfry Shaft: In the 15, east of this shaft, the lode is large, strong, and promising for improvement, producing stones of copper ore and tin. In the 15 fathom level west the lode is still disordered by the elvan.

WHEAL TRELAWNY.—Wm. Johns, T. Grenfell, J. Pryor, April 28: Since our last report the 220 cross-cut east, in bottom of Trelawny's engine-shaft, has been extended far enough to enable us to resume the sinking of the shaft. We are daily cutting branches in the end, with an increase of water, which indicates that we are not far distant from the capels of the lode. In the 210 south the ground in the end has considerably cased; the lode is worth about 7*l.* per fathom. In the 210 north we cut through the lode; the lode and capel are over 6 ft. wide, containing some very fine stones of ore. We have again commenced driving by the side of the same, and no doubt shall soon drain the level above, and set winzes to open out ground speedily. In the 210, south of Smith's engine-shaft, the lode in the end is looking more promising; and, seeing that we are approaching the slide, we may reasonably expect a further improvement. In the 210 north, having such a large stream of water coming out of the end, we think it best to drive on a few fathoms further by the side of the lode before cutting into it. The sinking of the winze below the 196 is 4 fms. in advance of the end, and is going on satisfactorily. In the 196, north of Chippindale's shaft, we have again taken down the lode, which is worth about 5*l.* per fathom. A winze sinking about 20 fms. in advance of this end is down 5 fms., in which the lode is worth 6*l.* per fm. We are getting on pretty well in dressing, and shall sample in good time our usual quantity.

WHEAL TREVENNA.—W. H. Willcock, April 29: We are driving on the cross-cut from the shaft, on the copper lode, with as much speed as possible; during the last month we have been on the large elvan course, which runs parallel with and on the south of the lode. The elvan is very stiff, but we hope soon to be through it, and intersect the tin lode, which I trust to find rich, as the elvan is highly mineralised, carrying tin, mundic, and copper disseminated throughout, which I look upon as a very favourable indication of the lode being as rich here for tin as we had it further west.

WHEAL UNY.—S. Coade, M. Rogers, April 25: The 140 fm. levels are driven east and west of the engine-shaft about 1 fm. each; driving by six men in each end, at 12*l.* per fathom. We had to drive east at the 130 about 5 fms. before meeting with the rich tin ground, and we expect to have to drive the same distance in the 140 to meet with it. The appearance of the lode is very similar to what it was in the 130. The lode in the ends on the part driven is worth 7*l.* per fm. When we get off from the shaft we shall prove the south part of the lode. The cross-cut south at the 130 is driven through the lode 2 fms., and has produced tinstuff of an average quality. The lode in the cross-cut at present is not quite so good for tin, and we have taken three men from this point, and put them down at the 140, so push it on with all possible speed. We intend to keep three men in this cross-cut, and drive through the lode to the south wall to prove it. The 130 driving east by four men, at 9*l.* per fathom. The 120 east by two men, at 10*l.* per fathom. The 110 east by four men, at 7*l.* per fathom. The 100 east is driving by four men, at 8*l.* per fathom. The incline shaftmen are driving the 140, west of shaft; we shall have to drive a few fathoms to get under the tin ground we had in the level above. The lode in the end is of a very promising character; driving by six men, at 5*l.* per fathom. The 140 east is driving by four men, at 5*l.* 10*s.* per fathom. The 130 west is driving by two men, at 3*l.* 10*s.* per fathom. The 120 west is driving bytwo men, at 3*l.* per fathom. The stopes are looking much as usual for tin.

FOREIGN MINES.

MARIQUITA.—Santa Ana Mines: The superintendent writes, under date Feb. 21—After dispatching the English mail yesterday we found a great improvement had taken place in Bull's lode, a new branch having come in, containing much native silver and argentiferous galena, blende, and pyrites.—Feb. 29: Bull's lode continues well; I take it to be worth 600 ozs. per fathom.—Pumps down Lara's Winze: This job has been satisfactorily completed, and we shall now be able to stope away the ground left standing over and under the flat-rod beyond Laras winze.—Underground Progress: Hopkins's shaft sunk and timbered, complete, to 3 fm. 1 ft. 6 ins. below the 120.—Export ore: 20 boxes sent forward, value $1266; 3 tons more being got ready.—Marmato Mines for the month of February: Cost, $11,917; returns, $9916. The short supply of water consequent to the injury to the accquia again affected the returns, the average number of stamp-heads at work for the month being only 69 out of 91. The accquia, however, will now be repaired in two days, and we shall then have a full supply of water, and may expect a better result.—Aquas Claims for the month of February: Export ore, $4535. The total cost for this month was $1987.

DON PEDRO NORTH DEL REY.—Francis S. Symons, March 20: I have much pleasure in informing you that on the 18th we succeeded in ventilating No. 4 line, and clearing it of bad air. Yesterday 18 boxes of vein stuff were taken from it, which will give from 900 to 100 oits. We are engaged in clearing this at present, and have not finished. This letter I hope will arrive in Rio for transmission by the French packet. In the other parts of the mine there is nothing new. An air-machine is being made, to prevent trouble from foul air.

SAN PEDRO DEL MONTE.—W. H. Chynoweth, March 25: The mines continue in a prosperous state. The new level from the bottom of Wilson's winze has been driven on 2½ yards; the lode is large, and disseminated throughout with good ore: 1½ yard has been driven north, where the lode is at present contracted, but contains a branch of rich silver ore. The stopes in the back of this level, south of Wilson's winze, and the stopes in the bottom of Wilson's level, also south of Wilson's winze, are yielding rich ore. The stopes south of San Carlos winze, in the back of Wilson's level, have improved; and the south end of Wilson's level continues driving in profitable ground. About 8 tons of ore have been dressed during the month, besides a pile from the San Enrique level, on the San Pedro lode, which has been lying on the floors ever since the temporary suspension of that part of these mines, and has yielded nearly 1 ton of ore, assaying 150 ozs. per ton; this speaks well of our future operations in that direction. It is most important to resume these workings as early as circumstances will permit, as it is evident that section of this negociation is very rich.—Reduction Works: The two water-wheels are finished, and the stamps, with the exception of putting in the heads, which are on the road, as well as all other requirite castings. The barrels and calcining furnaces are in course of construction, and we still hope to commence the amalgamation by the end of May next. I have not attempted to place any preference shares in Mexico, but, if pressed, I think it is not improbable to be able to dispose of some, as the period draws near for making returns, but will avoid taking this step if possible.

JAVALI.—The directors have received a telegram from Mr. Melville Attwood, of San Francisco, informing them that the second ten heads of stamps and the amalgamating pans ordered by the board had left California on April 4. This additional machinery will now have arrived in Nicaragua, when there are at least six clear weeks more of the dry season for getting it up to the Javali.

EL CHICO.—J. R. Rule, March 27: As we approach the point where the ores were met with above we discover good spots of ore, in a part of the vein lately cut into in cross-cutting south, and some bits of this class picked out gave an assay of 12 marcs (72 ozs.) to the ton, which may be regarded as a very favourable indication. We have yet 12 varas to drive to reach the shaft, but, on meeting lately with a soft channel of ground, resembling a cross-course, with vughs running south, we took advantage of it to prove the vein in the south, but though we drove 8 varas (22 ft.) and over we did not reach the south wall. Considering it at present of most importance to push on the adit eastward to the place of the El Torno shaft, we have set it again to drive at $30 per vara, there being much "jabones," or flookan, or soft white clay, mixed up in the vein, or forming partitions between the different branches of ore of the lead, zinc, and iron pyrites class that we have been lately cutting through. There can be no question, therefore, that we are getting into a highly metalliferous district, and are on an extraordinarily wide vein, or assemblage of veins, whose general direction is nearly east, and any alteration of these towards the south-east, whether by any other vein joining in or otherwise, is likely to be accompanied by the discovery of ores of a profitable ley, this altered direction being that of the productive district, and is most observable at the surface. The ores received for reduction at the hacienda during the past month have been 138¾ cargas, with some small parcels reduced in barrels. The San Buena Ventura Mine having been drained, and now working on ores, I expect that it will be advantageous for them to send us some. The country hereabouts is quite favourable.

CAPULA.—Capt. Paull, March 25: The torta of 132 cargas, now in beneficio at San Cayetano hacienda, assayed 22½ cargas per monton, and I expect it will be washed next week; another torta, of 112 cargas, will be incorporated to-morrow, the assay from which I shall get on Friday.—The Mine: In the stopes west of San Jorge rise we have more azogue ore, but scarcely any smelting. In the stopes east of rise, and west of La Bomba shaft, the metal part is narrow, and ground very hard, but to the east of La Bomba the lode is without alteration, producing good ley ore of a copper colour, but not so good as we had in the Esperanza level. The Esperanza level has been driven by four men and three boys, the ground is more favourable, and the lode without alteration since my last. The San Enrique level has also been driven by four men and three boys; the lode has very much improved since my last, and is composed of very

white quartz, with blue ore disseminated all over: the level is nearly 2 varas wide, and we have not got either of the walls, but are driving a little south of east, so as to meet the south one—this has always been a promising point, but more so now than before. We have broken several cargas of gossan ore from the south side of San Enrique level, west of the cross-cut, assaying from 6 to 13 marcs per monton; as soon as it is dressed over we shall send it to the hacienda. The engine and boiler houses are up, and the carpenter employed putting on the roofs with shingle; I intended to have covered it with tiles, but owing to the severe frost in February we have not been able to make them in time. The cylinder, fly, and crown-wheels, with shafts, are in their places; we are still short of holding-down bolts. I received a letter from Encarnacion, under date of the 3d inst., in which they promised to send the iron in the following week, but it has not arrived as yet. Mr. Barlow was in Pachuca last week, and he said the cargo was made up before he left the ironworks. Some of the masons are employed about the outer wall for the bearings of the crank and the stack, the others will go about the wheel-pit at the hacienda, and we shall soon employ the whole of them in the works of the hacienda.

PANULCILLO.—J. J. Hamilton, March 16: In consequence of the scarcity of workmen there has not been so much work done in the mine as usual. The number of miners employed in the extraction of ores has only been 204, and the amount extracted has only reached 4070 tons. The quality of the ores is good, a still further improvement having taken place, and the average of all extracted cannot now be less than 6½ per cent. Owing to the short extraction of Panulcillo ores, we have been obliged to stop three furnaces in each establishment, reducing the number at work during the last ten days of the month to 14. We have, nevertheless, produced during the month 13·694 metrical quintals, of an average ley of 28·2 per cent., or equivalent to 380 tons of pure copper. San Gregorio tunnel has not been worked at all during the month, all the men having been required for more necessary work. The tramway now carries daily, of ores, coals, and regulus, over 160 tons, which is sufficient for present requirements, all other means of carriage being now stopped.—Cerro Negro: From this mine we have received during the month 1080 tons, and there remains on cancha a considerable quantity of ores.

UNITED MEXICAN.—Guanaxuato, March 23: Mine of Jesus Maria y Jose: The temporary excitement caused by the improvement in the mines of the Veta Madre has in a measure ceased, and our buscones in Jesus Maria have increased again. The sales by buscones for the four weeks ending March 19 amounted to $6996. The extraction of hacienda ore has also improved a little, and has averaged for the last three weeks above 900 cargas. The workings are much in the same state as when I last wrote, except that we have been unable to get the water under in the pozo de guia of the planes (deepest workings). We are putting in some pumps, which may enable us to drain it and the other pozos, and to resume work. The accounts for the month of February show an apparent loss of $3952, but in the present month of March we shall have two raspas, one from Duran and one from Casas Blancas, which may clear off part of the loss incurred in the first two months of 1868. You must also recollect that in the first months of the year we lay in stores for the consumption of the mine during the rainy season.—Mines in the Guadalupe de la Oscura District: Most of our workmen have deserted us, and we have been under the necessity of discontinuing the weekly sales. For the last fortnight the small quantity of ore extracted has been divided between the mine and the workmen. The outside workings are being worked by buscones on a small scale. In Encinillas we are limited to driving down the work of El Patrocinio and the timbering of El Oro shaft, and I am doing all that is possible to reduce our outlay in these mines for the present. As few of the workmen to be got are skilled miners, the work goes on slowly, and the expenses fall heavily on a limited amount of labour.

COBRE COPPER.—By the last advices received by this company we learn the works at the mines were proceeding satisfactorily, the raisings of ores fit for shipment in March being 387 tons. After loading the Gitanilla, expected to sail about the 12th ult., there would remain on hand 455 tons of stone ores, and 531 tons of dust and poor ores, sufficient to make 359 tons of regulus. During March, at the smelting-works two furnaces were at work, and the make of regulus amounted to 64 tons. Shipping has been dispatched to bring home these ores.

REVIVAL IN CORNISH MINING—NORTH LEVANT.—Latterly the improvements and discoveries in this mine have been somewhat numerous, and the operations appear to have been carried on with energy and skill. It is gratifying to be able in this week's Journal to state that there has been a wonderful discovery in this sett, and one that will, it is believed, prove highly remunerative to those who have been fortunate enough to obtain an interest in it. The captain of the sett reports that they have cut a lode in the cross-cut, driving north of the Stennick part of the mine, and that it is beyond all doubt the identical lode that was lost some 25 years ago, and he further states that the ground is soft, and the stuff is of a very rich quality. This is highly gratifying; for be it remembered that during the time this lode was being worked, in about the year 1843, the returns were very large, and the shares were sold at about 135*l.* each. We cannot go into a lengthy detail of this rich discovery, but further particulars may be obtained through Mr. Y. Christian, 6, Bond-court, Mansion House, London, and that specimens and sections of the mine may likewise be seen at his offices.

THE STEAM BIRD.—Under this title Mr. J. K. SMYTHIES, of Paddington, barrister-at-law, proposes to introduce a "flying steam-engine," fitted with wings, flapped by the action of steam. He reduces the ratio of the weight of the engine to its power by using a tubular boiler, with very small and thin tubes. He will use liquid fuel, and carry very little water, condensing the steam by a very light condensor, made like the tail of a bird, to sustain the bird and steady its flight. The arms of the wings are connected with the piston-rod of the engine, so that the apparatus is raised by the strokes of the wings alone, without light gas, heated air, or other contrivance, to give it buoyancy. To this engine he attaches seats for passengers.

BLAST-FURNACES.—According to the invention of Mr. F. LURMANN, of Oesede, near Osnabruck, Prussia, the slag is continually discharged, but in such a manner as to remain at the same level within the hearth, with little fluctuation. The hearth is closed on all sides the tymp, the opening in front of the furnace, and the dam are all done away with. The outlet for the scoria consists of a block of metal, in which is a cylindrical hole, with conical widenings at both ends; this outlet may either be flush with the inner wall of the furnace, or it may project a little; the same is fastened to a plate fixed in the wall of the hearth by dovetail or otherwise, but so that it may very easily be removed and replaced. The scoria outlet, as well as this plate, are provided with canals through which cold water is circulating. The canals of both the plate and outlet may either communicate with each other or be separate. The hole in the wall of the hearth in which the scoria outlet is is somewhat wider than the outlet itself; the space between is closed with clay, loam, or other suitable substances. The outlet for the molten metal, the tap-hole, is in the wall of the hearth, and being in immediate contact with the greatest heat may be easily kept in order.

QUARRYING SLATE.—In using the machine patented by Messrs. COOKE and HUNTER, in 1866, it was found that, after causing the machine to cut forward a distance into the slate or stone, and form an annular groove therein, the time occupied in removing the central core by hand, through the middle of the machine, was about three times as long as the time taken by the machine to cut the groove, so that the machine was idle 9 hours out of 12. To remove this inconvenience Mr. W. Fothergill Cooke uses in combination with the machine a traversing machine, so that the cutting machine, when run back, can be shifted sideways, and caused to cut a second tunnel, parallel with and slightly intersecting the tunnel first formed; a third, and also a fourth tunnel may be formed in the same way, after which the first tunnel may be returned to. When the cutter revolves in the direction of the hands of a watch the second tunnel should be on the right of the first. The first tunnel should always take the lead of the second tunnel. By these arrangements the state of the tools can always be seen, and tunnels can be opened at different levels, so as to open a free face for working between the floors.

OBTAINING SULPHUR FROM RESIDUES.—An invention has been provisionally specified by Mr. T. BELL, of Hampstead, which has for its object the extraction of sulphur from the oxide of iron residue obtained in gas purification. He treats the oxide with bisulphide of carbon, by which sulphur is taken up, repeating the process until no sulphur remains. He afterwards distils off and recovers the remaining bisulphide, leaving only cyanides and a few other impurities in the oxide, which may be burnt off. He separates the sulphur and bisulphide by distilling over the latter, and then melts the sulphur into cakes.

CORNISH PUMPING ENGINES.—The number of pumping-engines reported for March is 22. They have consumed 1758 tons of coal, and lifted 13·9 million tons of water 10 fms. high. The average duty of the whole is, therefore, 53,300,000 lbs., lifted 1 ft. high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Cargoll Mines—Michell's 72 in. ..... Millions	57·6
Chiverton Moor—70 in.	62·3
Dolcoath—Harriett's 60 in.	53·4
Great North Downs—Sleggan's 70 in.	56·8
North Wheal Crofty—Trevenson's 80 in.	59·6
Providence Mines—40 in.	57·3
South Wheal Frances—Marriott's 75 in.	63·4
West Chiverton—Hawke's 80 in.	63·9
West Wheal Seton—Harvey's 85 in.	69·8
Wheal Seton—Tilly's 70 in.	72·1

*** With last week's Journal we gave a SUPPLEMENTAL SHEET, which contained the Meeting of the South Wales Institute of Engineers—Devon and Cornwall Miners' Association—"Railways and the Public"—Preferential Shareholders—The West St. Ives Mining District (*illustrated*)—Australian Mining Reports—Exports of Coal—Tax on Coal—Coal Field on Fire in Scotland—Papers on Practical Mining—Foreign Mining Intelligence: St. John del Rey; Don Pedro North del Rey; Anglo-Brazilian; Rossa Grande; Javali; Chontales; Alamillos; Rhenish Consols; Fortuna; Linares. Prevention of Accidents from Over-Winding: Ormerod's Patent Safety Link (*illustrated*)—Generation of Steam by Gas Heat (*illustrated*)—New Lubricant Tester (*illustrated*).

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, MAY 1, 1868.

COPPER.	£ s. d.	£ s. d.
Best selected..p. ton	84 0 0-	86 0 0
Tough cake and tile	81 0 0-	84 0 0
Sheathing & sheets.	85 0 0-	88 0 0
Bolts	83 0 0-	—
Bottoms	86 0 0-	88 0 0
Old (Exchange)	68 0 0-	70 0 0
Burra Burra	83 10 0-	84 0 0
Wire.....per lb.	0 1 0-	0 1 0½
Tubes	0 0 11½	1 0

BRASS.	Per lb.
Sheets .....per lb.	9d.-10d.
Wire ..... ,,	8½d.-9½d.
Tubes ..... ,,	10½d.-11d.
Yellow Metal Sheath.p. lb.	7¼d.- —
Sheets ..... ,,	7 d.- —

SPELTER.	Per ton.
Foreign on the spot.	£20 5 0-20 7 6
,, to arrive ..	20 5 0-20 7 6

ZINC.	
In sheets	£26 0 0- —

TIN.	
English blocks	98 0 0
Do., bars (in barrels)	99 0 0
Do., refined.....	101 0 0
Banca	£95 0 0-96 0 0
Straits	93 0 0-93 10 0

TIN-PLATES.*	Per box.
IC Charcoal, 1st qua.	1 7 0- 1 10 0
IX Ditto, 1st quality	1 13 0- 1 16 0
IC Ditto, 2d quality..	1 5 0- 1 7 0
IX Ditto, 2d quality..	1 11 0- 1 13 0
IC Coke.....	1 3 0- 1 4 0
IX Ditto	1 9 0- 1 10 0
Canada plates, p.ton..	13 10 0- —
Ditto, at works	12 10 0- —

IRON.	Per ton.
Bars Welsh, in London	6 5 0- —
Ditto, to arrive	6 2 6- 6 5 0
Nail rods	6 15 0- 7 0 0
,, Staffd. in London	7 7 6- 8 10 0
Bars ditto	7 7 6- 9 10 0
Hoops ditto	8 5 0- 9 15 0
Sheets, single.....	9 0 0-11 0 0
Pig No. 1, in Wales ..	3 15 0- 4 5 0
Refined metal, ditto..	4 0 0- 5 0 0
Bars, common ditto..	5 10 0- 5 15 0
Do. mrch. Tyne or Tees	6 10 0- —
Do., railway, in Wales	5 10 0- 5 15 0
Do., Swed. in London.	10 2 6-10 5 0
To arrive	10 2 6-10 5 0
Pig, No. 1, in Clyde ..	2 12 9- 2 17 0
Do. f.o.b. Tyne or Tees	2 9 6- —
Do. Nos. 3,4, f.o.b. do.	2 6 6- 2 7 0
Railway chairs	5 10 0- 5 15 0
,, spikes	11 0 0-12 0 0
Indian Charcoal Pigs, in London p. ton..	7 0 0- 7 10

STEEL.	Per ton.
Swed., in kegs(rolled)..	14 5 0- —
,, (hammered)..	14 15 0-15 0 0
Ditto, in faggots	16 0 0- —
English, spring	17 0 0-23 0 0
QUICKSILVER (p. bottle)	6 17 0- —

LEAD.	Per ton.
English Pig, com.....	19 10 0-19 12 6
Ditto, LB.	19 15 0- —
Ditto, WB	21 10 0- —
Ditto, sheet.....	20 5 0- —
Ditto, red lead	20 15 0- —
Ditto, white	27 0 0-30 0 0
Ditto, patent shot....	22 10 0-23 0 0
Spanish.....	18 15 0-19 0 0

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—The Metal Market continues steadily to pursue a course of improvement, and, although it may not be very rapid, yet it is satisfactory to find that it is still going forward without drawback, so that we can anticipate its full development at no distant period, should nothing unforseen arise to check its progress. The depression in trade, however, has been so extensive, and of such lengthened duration, that it necessarily takes a long time before its recovery can be pronounced perfect; and although we are, no doubt, approaching that desirable point, we cannot be said yet to have reached it. The symptoms are, however, decidedly encouraging, and lead us to believe that business will, ere long, resume its wonted vigour and activity. Two events have been announced this week, the results of which are calculated to produce universal satisfaction throughout the country. The first is the successful termination of the Abyssinian war, and which has been brought to so glorious a termination by Sir Robert Napier, and in which all the objects that were sought to be obtained by the expedition have been fully achieved; and although the expense has been considerable, yet, as it at present appears that it has been most unprecedently accomplished without loss of life, there is nothing to detract from the joy of the victory. The other is the unsuccessful attempt to assassinate the Duke of Edinburgh, the intelligence of which has filled the public mind with the deepest abhorrence of the abominable crime attempted by the wretch who has now, doubtless, paid the penalty of his crime; and with thankfulness at the failure of the attempt, and that the Prince still lives, and is reported to have recovered from the wound, we sincerely trust that his life may long be preserved as a comfort to his royal mother, and as an honour to his native land.

COPPER.—The market for this metal has become much firmer during the week, caused principally by advices from Chili as to the smallness of the quantity being shipped to this country, and the consequence has been the advance in price of Chili bars, extensive sales of which have taken place at 77*l.* English has also become much firmer, although the demand is not very great.

IRON.—In Staffordshire there are more enquiries for rails, particularly for Russia and the United States, and although South Staffordshire gets few of such contracts, yet they reduce the competition of other districts for makes which are supplied there. The general demand for the United States is, however, slack, and the advices from Australia are not very favourable. A degree of improvement appears in the home trade, but it is not very extensive. In Welsh the unsettled state of the trade in other districts checks to some extent the tendency to improvement which has set in, makers and buyers being more cautious in entering into engagements than they would otherwise be. The export trade shows a gradual increase, and the orders coming in from the United States and Russia indicate that a tolerably good foreign business will be done during the next few months. In Swedish iron a moderate business is doing, and prices are pretty firm. In Scotch pig-iron there has been little or no change in the market during the week, and few sales of importance have occurred; the price has remained, with trifling variation, the same as last week, 52s. 3d. cash.

LEAD.—The demand is by no means so active as it was, still a moderate business is doing, and prices remain without alteration.

TIN.—The market for foreign has remained rather quiet during the week, and the amount of business transacted has not been extensive. Sales of Straits have taken place at 93*l.* cash, which may be considered the quotation. In Holland the stock of Banca on warrants on April 30 was 119,211 slabs, against 164,356 slabs same time last year, and the arrivals towards next sale were 59,760 slabs, against 35,948 slabs same time last year. The portion of last sale which was disposed of is included in the stock on warrants, and the quantity unsold is included in the arrivals for next sale.

SPELTER.—No improvement has taken place in the market, which continues inactive, and prices have undergone no change.

TIN-PLATES are selling freely, and there are hardly any stocks in makers' hands.

STEEL and QUICKSILVER remain without alteration.

The settlement of the fortnightly account took place in the MINING SHARE MARKET on Wednesday, and was heavy in Chontales and Prince of Wales shares, but not particularly so in other stocks, and very little change has taken place in the market since, Friday being a holiday, both on the Stock and Mining Exchanges. The standard for copper ores has again declined this week, much to general surprise. The shares mostly dealt in have been Prince of Wales, West Chiverton, Chiverton Moor East Grenville, Wheal Grenville, Emily Henrietta, Chontales, Marke Valley, North Crofty, West Seton, Mary Ann, Seton, and a few others. Wheal Emily Henrietta shares have declined after the great and sudden rise of last week to 31, 33, but we hear of no change at the mine. Prince of Wales, 49s. to 51s.; no change at the mine, and the next sampling will be about 1000*l.* Devon Great Consols, 440 to 450; the annual statement of accounts has been issued by the directors preparatory to the general meeting, to be held on May 12. The ores sold during the year 1867 realised 95,434*l.* 17s. The working costs during the same period were 37,822*l.* 17s. 9d.; royalty paid, 7728*l.* 12s. 6d.; dividends to shareholders, 40,960*l.*; balance in hand, after deducting various incidental charges, 14,064*l.* 9s. 2d. The general statement of assets and liabilities shows of balance in favour of the company of 101,309*l.* 4s, 9d., valuing the mines at 48,988*l.*, ores at surface 18,098*l.*, Exchequer bills 5000*l.*, balance in former statement 14,064*l.* 9s. 2d., &c. Bedford United, 25s. to 30s.; Carn Brea, 17 to 18; Chiverton Moor, 5⅞ to 6¼; Clifford Amalgamated, 5¼ to 5⅝; Drake Walls, ⅝ to ¾. East Caradon shares have advanced to 4⅛, 4¼. Chontales, 2½ to 2¾.

Wheal Trelawny, 8 to 8¼; the channel of ground in the 220 fm. level cross-cut is all that can be desired, and as branches are being duly met with the lode must soon be cut. The 210 south, at Trelawny's shaft, is worth 7*l.* per fm.; north over 6 ft. wide, with fine stones of ore, and letting out a good deal of water; here will soon be opened out the run of ore ground gone down in the 196. The next sampling will be about 140 tons of lead, of No. 1 and No. 2 qualities. East Gunnislake and South Bedford, 20s. to 25s.

West Chiverton, 64 to 65: Daukes's shaft is sinking below the 120 in a good-looking channel of ground, and the men are making good progress in driving the 120 fm. level cross-cut south. The 110 west, on the south part, is worth 20*l.* per fathom; the lode when last cut through was worth 80*l.* per fathom. The 100, east of cross-cut, is worth 40*l.* per fathom; the 100, west of No. 3 winze, is worth 60*l.* per fathom; the 90 west, 20*l.*; the 90 east, 25*l.*; the 90 west end, on William's lode, is worth 15*l.*; the 70, west of cross-cut, on the new north lode, is worth 15*l.* per fathom. The stopes continue to look well. East Carn Brea, 20s. to 25s., call of 3s. per share paid; East Lovell, 8¼ to 8⅜; New Lovell, 17s. 6d. to 22s. 6d.; East Russell, 15s. to 20s., call paid. East Wheal Grenville, 37s. to 39s.; the lode in the shaft is worth 4 tons of copper ore per fm., valued at 10*l.* per fm.

Wheal Grenville, 36s. to 38s.; the new lode is worth 30*l.* per fm.; the 110, south from the main lode, in the cross branch, has been set to drive towards the new lode seen in the 120, and it is calculated it will be seen this month, and is an important point. Frontino and Bolivia, 10s. to 12s. (call of 2s. 6d. per share paid); Great Laxey, 16¼ to 17; Great North Downs, 3¾ to 4; Great Wheal Vor, 17½ to 18½; Herodsfoot, 38 to 40; Marke Valley, 6⅜ to 6¾; North Chiverton, 4 to 4½; North Crofty, 2⅜ to 2⅝; North Treskerby, 17s. 6d. to 20s.; Providence Mines, 27 to 28; South Caradon, 395 to 405; South Frances, 19 to 21; St. Ives Consols, 2¾ to 3¼; Tincroft, 14 to 15; West Caradon, 7 to 8; West Frances, 28 to 30; West Prince of Wales, 9s. to 11s.; West Seton, 205 to 210; West Tolgus, 30 to 35; Wheal Basset, 63 to 65; Wheal Chiverton, 2¾ to 3; Wheal Mary Ann, 21½ to 22½; Wheal Seton, 75 to 77½; Wheal Uny, 39s. to 41s.

Business in the Mining Market on the Stock Exchange continues active. Anglo-Brazilian, Rossa Grande, and English and Australian Copper Smelting Company shares continue in request. Chontales shares, on the other hand, have been very depressed. St. John del Rey shares have also receded. Other quotations have not varied to any great extent. St. John del Rey, 19½ to 20½; Don Pedro, 2⅛ to 2¼; Anglo-Brazilian, ¼ to ⅜ prem.; Rossa Grande, 1-16th dis. to 1-16th prem.; Pestarena, ⅛ to ¼ dis.; Chontales, 2⅜ to 2⅝; Anglo-Italian, par to ¼ prem. Frontino and Bolivia, ½ to ⅝; a remittance of 900*l.* has been received. Port Phillip, 1½ to 1⅝; Yudanamutana, 2 to 2¼; English and Australian Copper, 13-16ths to 15-16ths; Scottish Australian, 1 to 1⅛; Kapunda, 3-16ths to 5-16ths. British mines have commanded a fair share of attention. Prince of Wales shares rose to 52s., 53s., but close 48s. to 50s. West Chiverton shares have been very steady, at 64 to 66; Chiverton Moor, 6 to 6¼. Chiverton, 2¾ to 3; the prospects in this mine are more hopeful. Chiverton Valley, 4½ to 5. Great Wheal Vor shares are rather less firm, at 18 to 18½. Great Laxey, 17, sellers. North Crofty, Wheal Grenville, East Grenville, and other shares dealt in are steady and unchanged in prices. There is no change to notice in North Wales mines. Minera, 165 to 175; Maes-y-Safn, 26 to 28; Glan Alun, 7s. to 8s.

IRISH MINE SHARE MARKET.—The upward movement of the New Three per Cents. on the London Stock Exchange was responded to in Dublin to the extent of 3s. 9d. for money, but for account they were slightly weaker. Railway shares were mostly dealt in at fractional concessions by the sellers, and bank securities were simply steady, but mining shares, notwithstanding their great rise during the last fortnight, continued not only at their higher rates, but were in great demand, and in the case of the Wicklow Copper shares, made a formidable advance of fully 1*l.* per share (2*l.* 10s. paid). Last week they left off at 13*l.* 12s. 6d. buyers, and have since repeatedly been dealt in at prices fluctuating between 14*l.* 10s., 14*l.* 7s. 6d., and 14*l.* 12s. 6d., realising at the medium quotation the increase mentioned. Mining Company of Ireland shares have been much in request, and, therefore, very steady at last week's closing price of 19*l.* 12s. 6d. (7*l.* paid). Connorree shares have not been so much enquired for these last few days, and have, therefore, gone back from 4s. 9d. to 4s., at which price, however, more would be taken.

The HUMBOLDT SILVER MINING COMPANY (as stated in last week's Journal) has been formed for the purpose of working a mine in the Pacific States. The property, known as the Honey Lake Mines (the value and extent of which have been referred to upon several previous occasions) comprise nine parallel silver lodes, each 1465 feet in length; upon the continuation of these lodes are the richest mines in the States. As an evidence of the *bona fides* of the undertaking, it may be stated that the vendors are to receive for the property the sum of 30,000*l.* in shares, which are not to participate in profits until the amount of the paid-up capital has been returned to the subscribing shareholders. The undertaking is introduced under most favourable auspices.

At the Redruth Ticketing, on Thursday, 1726 tons of ore were sold, realising 9049*l.* 18s. 6d. The particulars of the sale were:—Average standard, 109*l.* 18s.; average produce, 7¼; average price per ton, 5*l.* 5s.; quantity of fine copper, 125 tons 11 cwts. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Mar. 26....	2103	£109 4 0	7⅜	£5 12 0	14s. 7d.	£73 4 0
Apr. 2....	3151	118 6 0	6⅝	4 8 6	14 7	73 0 0
,, 9....	1827	122 16 0	5¾	4 7 0	15 1	75 13 0
,, 23....	4004	117 12 0	6½	4 16 6	15 0	74 19 6
,, 30....	1726	109 18 0	7¼	5 5 0	14 5	72 1 6

Compared with last week's sale, the decline has been in the standard 2*l.* 15s., and in the price per ton of ore about 4s. Compared with the corresponding sale of last month, the standard has slightly declined.

The following dividends were declared during April:—

Mines.	Per share.	Amount.
Wicklow	£0 6 0	£5100 0 0
Maes-y-Safn	0 15 0	2250 0 0
West Wheal Seton	5 0 0	2000 0 0
Marke Valley	0 4 0	1800 0 0
Dolcoath	4 0 0	1432 0 0
Cwm Erfin	0 15 0	650 5 0
Creegbrawse and Penkevil	1 5 0	636 5 0
East Darren	2 0 0	600 0 0
Wheal Basset	1 0 0	512 0 0
Brookwood	0 2 6	500 0 0
South Darren	0 1 6	450 0 0
Total		£15,930 10 0

At Cargoll Mine meeting, on Tuesday, the accounts for the three months ending December showed a credit balance of 605*l.* 5s. 6d. The report stated that for the credit of the next account they had sold lead ore amounting to 1209*l.*, and had for sale on Friday 87 tons, which they expected would realise about the same sum; they also had for sale about 200 tons of blende.

At East Trumpet Mine meeting, on Monday, the accounts showed a debit balance of 309*l.* 15s. 10d. A call of 5s. per share was made. The report stated that since the last meeting they had put their stamps partly in order, and are now stamping tinstuff. There are several tons of tin on the surface, which they hoped to sell previous to the next meeting, at advanced prices.

At the Penhale Wheal Vor meeting, on Monday (Mr. Holroyd in the chair), the accounts showed a balance of liabilities over assets of 1252*l.* 9s. 4d. A call of 10s. per share was made, payable in two instalments. Details in another column.

At the Anglo-Argentine Company meeting, on Thursday (Mr. Henry Haymen in the chair), convened in compliance with the regulations of the company, it was stated that sufficient time had not yet elapsed to enable the directors to have advices from their agent, Mr. Barnard. An adjourment was agreed on, there being an insufficient number of shareholders present to form a quorum.

At the Capula Silver Mining Company meeting, on Wednesday (Mr. John Phillips in the chair), the report of the directors was received and adopted. The retiring directors and auditors were re-elected. Details in another column.

At the Trinidad Petroleum Company meeting, on Thursday (Mr. Lawrence J. Baker in the chair), the report stated that the distillation of asphalte into crude oil, and the refining of the crude oil had failed, owing to the break-down of the retorts at Silvertown, and the collapse of the petroleum trade everywhere. Finding that the distillation of coal must be abandoned, both here

and at Antwerp, the directors associated themselves with Mr. H. P. Stephenson, a gentleman of high repute in the gas world, and certain experiments were suggested by him for the use of asphalte with coal for increasing the illuminating power of gas. The results of these experiments were made known to the shareholders in a pamphlet; and the directors, having attended as a deputation the boards of several of the gas companies in London to lay before them these facts, and to ask for a trial of the asphalte, are now waiting to see if their hopes in this direction are likely to be fulfilled. If they are, the future of the company may be considered decidedly hopeful. The balance-sheet will be issued, as usual, after June 30, when the directors hope they may be able to report something definite respecting the gas question.

At the United Mexican Mining Company meeting, to be held on Wednesday, the report to be submitted states that in this account there is included £18,123, expended in the mines of the La Oscura district. The operations have been conducted on an economical scale, and Mr. Furber states that the expenses in all branches are gradually being reduced to the lowest figure consistent with proper development. The reduction operations for the year 1867 yielded a profit of £32,574. The same causes which have prejudically affected the mines—high prices of corn and straw—also kept down the profits under this head. The current year has commenced under more favourable auspices, and better results may be expected. On Feb. 15, 1868, there was an available cash balance of £15,468, and the estimated value of tortas and ores on hand and under reduction, £42,915.

The Bank of England Return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT an increase in the "notes issued" of 71,905*l.*, which is represented by a corresponding increase in the "coin and bullion" on the other side of the account. In the BANKING DEPARTMENT there is shown an increase in the "public deposits" of 580,934*l.*, and in the "rest" of 3991*l.*: together, 584,925*l.*; a decrease in the "other deposits" of 432,148*l.*, and in the seven day and other bills" of 7149*l.*: together, 439,297*l.* = 145,628*l.*, and deducting this from 250,927*l.*, the increase in the "other securities" on the asset side, there remains a decrease in the total reserve of 105,299*l.*

Vice-Chancellor Giffard has appointed Mr. D. Parry, accountant, of White Lion-court, Cornhill, official liquidator of the Fremator Granite Company (Limited).

On the Stock Exchange the following prices were officially recorded during the week in British Mining Shares:—Great Wheal Vor, 18¼; East Caradon, 4¼.—In Colonial Mining Shares the prices were:—Cape Copper, 12, 11⅞; Yudanamutana, 2¼, 2 1-16th, 2⅛, 2; Vancouver, 3⅞, 3⅝, 3½; Port Phillip, 1½.—In Foreign Mining Shares the prices were:—St. John del Rey, 21, 20⅛, 19¾; Chontales, 2¾, 2 15-16ths, 2⅞, 2½, 2 5-16ths; Don Pedro, 2, 1⅞, 2⅛, 2⅜, 2¼ prem.; Fortuna, 2; Linares, 2¼; Anglo-Brazilian, ¾, ⅞, 13-16ths; Rossa Grande, par.

COAL MARKET.—The fresh arrivals this week have been rather considerable—135 ships. The demand for house coal has ruled dull throughout the week, and prices quote a reduction of 6d. Hartley's have continued a steady business, at previous quotations. Hettou Wallesend, 18s. 6d.; Haswell Wallsend, 17s. 9d.; Braddyll's Wallsend, 16s. 6d.; Eden Main, 15s. 6d.; West Hartley, 16s.; Cowpen Hartley, 15s. 9d. Unsold, 26 cargos; 20 ships at sea.

THE COPPER TRADE.

Messrs. J. Pitcairn-Campbell and Co. (Liverpool, April 30) write—After experiencing some reaction, with a deline of 3*l.* 10s. in the Cornish standard, and more inclination on the part of importers to sell, the copper market has again rallied, and we close with a very strong feeling. Quotations, 77*l.* to 77*l.* 10s. for bars, 79*l.* 10s. to 80*l.* for ingots, 15s. 6d. to 15s. 9d. for regulus, 16s. to 16s. 6d. for Barilla. Business transacted during the fortnight comprises on the spot here—1222 tons bars, at 75*l.* to 77*l.*; 338 tons ingots, at 79*l.* to 80*l.*; 424 tons regulus, at 15s. 3d.; and 1150 tons ore, at 15s. 6d. To arrive here—80 tons bars, at 76*l.* 10s. to 77*l.*; and 200 tons regulus, at 15s. 9d. On the spot, Swansea—150 tons ingots, at 79*l.* to 80*l.*; and 500 tons ore, at 15s. 6d. To arrive, Swansea—135 tons ingots, at 79*l.* 10s.; 250 tons bars, at 77*l.*; and 700 tons ore, at 15s. 6d.

Arrivals here during the fortnight—Cavalier, from Lota, 340 tons bars and 220 tons ingots; St. Thomas, from Valparaiso, 400 tons bars and 50 tons Barilla; Elizabeth Hargrove, from Guayacan, 640 tons ingots; Pactolus, from Chanaral, 655 tons ore; Seatoller, from Guayacan, 550 tons ingots; Corrinna, from Valparaiso, 50 tons bars. At Swansea—Sunbeam, from Boston, 580 tons ore and 318 tons regulus; Edgar, from Tocopilla, 390 tons ore and 265 tons regulus.

Stocks of copper (Chilian and Bolivian) in first and second hands, likely to be available, are—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool	1125	650	4282	2824	170
Swansea	1137	318	—	150	78
Total	2262	968	4282	2974	248

Representing about 7800 tons fine copper, against 9200 tons fine copper April 30, 1867; 10,400 tons fine copper, April 30, 1866; and 4700 tons, April 30, 1865.

THE COPPER TRADE.—Messrs. Vivian, Younger, and Bond (May 1) write—In the early part of the week there was not much business doing, but on Wednesday the mail from Chili was delivered, and, on its transpiring that the charters of fine copper during the first half of March only amounted to 670 tons for England, and 170 tons for America, a strong demand set in, and the market returned to the highest point reached a fortnight since. The transactions comprise over 1000 tons of bars from 75*l.* 10s., and closing at 77*l.*; about 500 tons refined ingots at 79*l.* and 79*l.* 10d.; 700 tons of ores at 15s. 6d., and 650 tons of regulus from 15s. 3d. to 15s. 9d. per unit, the latter being the last price paid. The advices from the West Coast are generally favourable for copper, and a considerable falling off in the charters this year is observable.

THE TIN TRADE.—Mr. L. Th. van Houten (Rotterdam, April 30) writes—Our market for Banca tin opened very strong in the beginning of the month, when it became known that the Trading Company refused to sell the 40,600 slabs, which had been withdrawn in the public sale of March 28, at 55 fls., and a large business took place, with an advance to 56¼ fls. In the middle of the month the price gave way, and, some holders being rather anxious to sell, a decline took p'ace to 55 fls., but large orders coming in at these low rates, a rapid improvement again took p'ace, and very extensive business was done up to 56 fls., at which the market closes very firm, with buyers. In Billiton tin a large business was done in floating parcels, from 54 fls. to 54¾ fls., and on the spot 54 fls. to 54½ fls. was paid; there are now no sellers under 55 fls. for both descriptions. The production of Banca tin in 1867 was again 18,000 slabs less than in 1866. The following statement shows the position of Banca tin in Holland on April 30, from the ffical returns published by the Dutch Trading Company:—

		1868.	1867.	1866.
Import in April	Slabs	7,445	12,016	18,111
Total four months		33,447	40,891	84,141
Deliveries in April		14,748	12,568	24,192
Total four months		42,498	36,640	61,337
Stock second hand		119,211	164,923	147,268
Total stock		178,217	200,871	213,433
Stock of Billiton		8,772	13,719	—
Quotation of Banca		56 fl.	52¼ fl.	47¾ fl.
April 30 Billiton		55	51½	47

The preceding returns of 1868, compared with those of 1867, exhibit—A decrease of the import for April of 146 tons, a decrease of the import for the four months of 238 tons, an increase of the deliveries for April of 70 tons, an increase of the deliveries for the four months of 188 tons, a decrease of the stock second hand of 1463 tons, an increase of the unsold stock of 738 tons, a decrease of the total stock of 725 tons, an advance of the quotation of Banca of 6*l.* 5s. per ton, The quantity of Banca tin now afloat for the Dutch Trading Company is 704 tons, against the same quantity last year. The Government returns for February are as follows:—

EXPORT OF TIN FROM HOLLAND.

	February.			Two months.		
	1868.	1867.	1866.	1868.	1867.	1866.
Germany ..Tons	195	138	183	377	368	319
Belgium	147	38	35	215	90	85
England	63	14	—	74	32	46
France	12	45	55	17	114	106
Hamburg	22	8	40	24	14	52
United States	6	—	—	6	—	96
Other countries..	9	1	10	10	22	10
Total ..Tons	454	244	323	723	640	714

ACCIDENTS IN COLLIERIES.—In the House of Commons, on Tuesday, Mr. Greene, who had a motion on the paper for a Royal Commission to enquire into Colliery Accidents, withdrew the motion, with some reluctance, believing that it was greatly to the disadvantage of the public interests that a mere party question, for such he looked on Mr. Gladstone's resolutions, should stop the way of all useful social measures, as well as measures of reform.

COAL IN NEW ZEALAND.—Capt. Hutton, F.G.S., has been making a survey of the Lower Waikato district of the north island of New Zealand. He reports that there is no probability of finding an alluvial gold district of any extent, but that the district has other deposits of value. The tertiary formation contains brown coal, having the appearance of Cannel coal, lustrous and pitch-black in colour, with brown film in places. It is a hydrous coal, containing a notable amount of water, but answers well in the steamers on the Waikato. It burns with a bright clear flame, and gives intense heat. This coal bed is estimated to contain 140,000,000 tons of coal. The whole of it can be worked without pumping, or any mechanical means for raising it to surface.—*Scientific Rev.*

SIEMENS' NEW PROCESS FOR MAKING CAST-STEEL DIRECT FROM THE ORE.—The author of this invention proposes to bring it shortly before one our learned societies; in the meantime we may state, in a few words, the nature of the process. He makes the steel on an open hearth of a furnace, effecting simultaneously the reduction of the ores in vertical heated hoppers, and dissolving the metal, without exposing it to the flame, in a metallic bath provided in the furnace. Cast-steel can be made also on open hearths by causing wrought-iron, steel, or white cast-iron, to descend down inclined planes, or through hoppers, where it is gradually heated, and passes thence into a fluid bath of molten cast-iron, where it is exposed to the action of very intense heat, by which it is dissolved and made into cast-steel. The regenerative gas furnaces are applied in these operations, so that a part of the products of combustion are withdrawn to heat the materials, which descend into the furnaces by gravity, and, at the same time the remainder, which have not been reduced by contact with cold material, pass through regenerators into a chimney as usual, the effect being that the temperature of the furnace is not reduced by the introduction of cold material.—*Scientific Review.*

NEW ALLOYS.—Two new alloys of tin and lead are described by M. Phloe While: containing less tin than is used in common pewter, they are said to possess most of the advantages of that useful alloy. They are not acted upon by vinegar, sour wine, or salt water. The first is made by melting one part of tin with 2·4 parts of lead. The lead is first melted and skimmed, then the tin is added, and the mixture is stirred continually with a wooden stick until it begins to cool, to prevent the lead from settling at the bottom. This mixture has the density of 9·64, and its melting point is 320° Fahr. It may be rolled cold, and the plates do not crack when bent. It takes a very good polish, and tarnishes but little on exposure. It will mark paper like lead, and is so soft that it may be scratched with the nail, but it will not foul a saw or a file. The second alloy is made by melting together in the same way one part of tin with 1·25 parts of lead. This alloy is less elastic and harder than the foregoing. It is rather brittle, less malleable than the former, and fills up a file. Neither of these alloys were acted on by boiling with acetic acid for half an hour, and standing in the acid for 24 hours longer, nor had the salt water any action upon them; hence, they may be useful for some kinds of utensils.

BISMUTH ORE.—A QUANTITY, from AUSTRALIA, FOR SALE, BY PUBLIC TENDER, early in June next. 47
For particulars, apply to—
JAMES AND SHAKSPEARE, 10, Austinfriars, London.

MANAGER WANTED.—WANTED, A RESIDENT MANAGER for the SNAEFELL MINING COMPANY (LIMITED), ISLE OF MAN. The manager must be a thorough practical miner in all its branches, able to dial and map, and must have had some experience as a manager. 48
Salary, £150 per annum, a comfortable house, garden, and a little land, with coals and candles.
Apply by letter, addressed, with testimonials, the SNAEFELL MINING COMPANY (Limited), Douglas, Isle of Man.

ORREL COAL COLLIERY, WIGAN.—WANTED, A PARTNER, to TAKE the PLACE of ONE OWNING A SIXTH PART, who is retiring from business. 49
Apply to ASTRUP CARISS, Accountant, Cook-street, Liverpool.

TO PROPRIETORS OF COAL MINES.—The Advertiser has DISCOVERED A METHOD OF UTILISING SMALL COAL at a TRIFLING COST, whereby LARGE PROFITS CAN BE MADE. He would accept a small share of the profits, or a stated sum for the information. 50
Apply to Mr. ROBERTS, Cranmer road, North Brixton, London.

TO COLLIERY PROPRIETORS.—An experienced Traveller, now resident in Bristol, desires an ENGAGEMENT as AGENT or MANAGER. The Advertiser has represented a colliery, and has a CONNEXION AMONGST LARGE CONSUMERS AND BUYERS OF COAL. The highest testimonials and references can be given. 51
Address, "H.," 12, Somerset-square, Bristol.

TO PRACTICAL SMELTERS.—WANTED, a PERSON PRACTICALLY ACQUAINTED with the ENTIRE PROCESS of SMELTING SILVER-LEAD ORE, to go to SOUTH AMERICA, on an ENGAGEMENT for TWO YEARS certain. 52
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Address, with full particulars, in strictest confidence, to "K.," care of Mr. Bailey, Stationer, Streatham-place, Brixton-hill, S.W.

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Apply to Mr. LEDWARD, Crypt Chambers, Chester.

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Full particulars may be obtained by applying to Messrs. NICHOLLS, MATHEWS, and Co., Bedford Ironworks, Tavistock.

ENGINES FOR ABSOLUTE SALE.—A 36 in. cylinder ROTARY ENGINE, 8 ft. stroke, equal beam, 10 ton fly-wheel, fly-wheel shaft, with 10 ton boiler; 18 in. cylinder WINDING ENGINE, 7 ton boiler, with fly-wheel and whim cage. The engines must be sold, and a low price will be accepted. 64
For further particulars, apply to Mr. THOMAS JAMES, Engineer, St. Agnes, Cornwall.

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In the Matter of the Companies Act, 1862,
AND OF
THE PEMBROKE SLATE COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that in pursuance of the Joint-Stock Companies Act, 1862, a GENERAL MEETING of the shareholders in the above-named company will be HELD at the Black Boy Hotel, Long-row, in the town of Nottingham, on FRIDAY, the 5th day of June next, at Four of the clock in the afternoon, when the Liquidator will submit to the shareholders of the company his account, showing the manner in which the winding-up of the affairs of the said company has been conducted, and the assets of the said company disposed of, and will also afford any explanation of or upon the said account that may be required of him.

N. BENNETT, 4, Furnival's Inn, E.C.
(Agent for Watson and Wadsworth, Nottingham, Solicitors for the Liquidator).

Witness: EDWIN J. DENHAM, clerk to Mr. N. Bennett, Solicitor, 4, Furnival's Inn, E.C.
Dated this 27th day of April, 1868. 67

In the Matter of the Companies Act, 1862,
AND OF THE
VOLUNTARY WINDING-UP OF THE DYFNGWM MINES COMPANY.

THE CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED, on or before the 23d day of May, 1868, to SEND IN their NAMES and ADDRESSES and the PARTICULARS of their DEBTS or CLAIMS to George Hadley, of No. 20, St. Helen's-place, in the City of London, the liquidator of the said company, or in default thereof they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such claims or debts are sent in and proved.

COBB AND SOUTHEY, Solicitors to the above-named Liquidator.
Dated this 23d day of April, 1868.

MESSRS. WILSON, WARD, AND CO., STOCK AND SHAREDEALERS, 16, UNION COURT, OLD BROAD STREET, LONDON, E.C. 69
Special business in Penhale United, New Great Consols, Frontino, and North Treskerby.

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OFFICES,—WATERLOO STREET, BIRMINGHAM.
CAPITAL,—HALF A MILLION,
Reserve fund, £12,000.
ADVANCES made upon approved real and other securities.
DEFERRED PAYMENTS on Wagon Leases and other contracts purchased or advances made thereon. HENRY ALLBUTT, Secretary. 70

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Prospectuses of this very valuable lead mine can be obtained from J. H. MURCHISON, Esq., 8, Austinfriars, London, E.C. There are only 400 shares of £20 each, payable by £5 instalments, and immediate application should be made for the same.
While COPPER and TIN have been very DEPRESSED in PRICE during several years past, and, indeed, are subject to frequent fluctuations, LEAD has been comparatively STEADY, and is generally so. In proof of this, it may be stated that while in 1862 only 13 public lead mining companies divided a sum of £70,590, last year (1867) 18 divided £127,280. In the public Share List there appear 47 dividend mines, of which 20 produce lead, and show the following most favourable results:—

The aggregate amount of their paid-up capital is	£ 468,073
They have paid in dividends	1,263,587
Their aggregate market value is	1,372,657

Of these 20 mines 9 are situate in Wales, and have paid considerably more than half of the above amount of dividends. There are other lead mines in Wales and elsewhere, in private hands, and, therefore, not included in the list, that are making good profits. 71
8, Austinfriars, London, E.C

AMERICAN MINES.

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Harford House, Chew Magna, Bristol, March 25, 1868.
N.B.—A few choice "Little Horses"—Cobs, Galloways, and Ponies—always on hand.

MR. THOMAS THOMAS, ASSAYER, &c., COPPER ORE WHARVES, SWANSEA. 75

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LEAD ORES.

Date.	Mines.	Tons.	Amount.	Purchasers.
April 25	Caldbeck Fells (blue)	24	£13 16 0	Sims, Willyams, & Co.
—	ditto (grey)	26	8 17 0	ditto
—	Isle of Man Mining Co.	40	12 13 0	Barry Port Company.
27	East Logylas	70	11 11 6	Weston & Collingborn.
—	Cwmystwith	70	11 12 6	ditto
—	Glogfach	46	16 7 6	Sheldon, Bush, & Co.
—	Bwich Consols	55	14 2 6	Weston & Collingborn.
—	Bwadrain	50	11 12 6	—

BLACK TIN.

Date.	Mine.	Ts. c. q. lbs.	Price p. ton.	Amount.	Purchaser.
April 25	Pedn-an-drea	9 0 2 26	—	£508 19 3	—

COPPER ORES.

Sampled April 15, and sold at Tabb's Hotel, Redruth, April 30.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
South Caradon	86	£5 2 6	Clifford Amalgamated	57	£4 4 0
ditto	85	5 6 6	ditto	56	3 11 6
ditto	79	7 2 6	ditto	50	3 6 0
ditto	68	5 8 6	ditto	21	3 12 6
ditto	52	11 12 6	West Damsel	67	5 3 0
ditto	50	6 12 6	ditto	49	1 17 6
ditto	49	9 17 0	ditto	48	3 18 6
ditto	43	10 19 0	ditto	47	4 16 6
ditto	54	10 11 6	Phœnix Mines	83	3 18 6
Great North Downs	104	5 3 0	ditto	82	4 4 6
ditto	103	6 2 0	Nangiles	34	3 19 6
ditto	81	4 17 6	Tywarnhaile	14	3 2 0
ditto	79	4 17 0	ditto	7	3 17 6
ditto	73	4 15 6	ditto	6	3 16 0
ditto	40	3 9 0	Pedn-an-drea	10	6 10 6
Clifford Amalgamated	62	2 1 0	Grambler & St. Aubyn	7	4 16 0

TOTAL PRODUCE.

South Caradon	546	£4073 19 0	
Great No. Downs.	480	2428 10 0	
Clifford Amalgam.	246	695 16 6	
West Wh. Damsel	211	852 2 0	
Phœnix Mines	165	672 4 6	
Nangiles	34	£ 135 3 0	
Tywarnhaile	27	93 6 6	
Pedn-an-drea	10	65 5 0	
Grambler, &c.	7	53 12 0	

Average standard ..... £109 18 0 | Average produce 7¼
Average price per ton £5 5 0
Quantity of ore ..... 1726 tons | Quantity of fine copper .. 125 tons 11 cwts.
Amount of money £9049 18 6

LAST SALE.—Average standard ..... £117 12 0—Average produce 6¼
Standard of corresponding sale last month, £109 4 0—Produce, 7⅛.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	319	£ 881 18 0
Freeman and Co.	114	571 16 6
Grenfell and Sons	215	973 16 0
Sims, Willyams, and Co.	177	1421 16 0
Williams, Foster, and Co.	316	2148 10 6
Mason and Elkington	216	1195 18 0
Bankart and Sons	221	1224 12 6
Copper Miners' Company	141	604 8 6
Charles Lambert	7	27 2 6
Total	1726	£9049 18 6

Copper ores for sale at Tyack's Hotel, Camborne, on Thursday next.—Mines and parcels.—Clifford Amalgamated 642—West Seton 549—South Frances 217—Wheal Basset 165—East Pool 144—South Crofty 129—North Grambler 72—East Grenville 49—Wheal Busy 30—North Roskear 25—Wheal Grenville 18—South Condurrow 18—West Stray Park 5.—Total, 2063 tons.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday week.—Mines and parcels.—Prosper United 483—West Basset 227—Wheal Margery 213—East Rosewarne 170—East Carn Brea 166—Botallack 98—Bampfylde 96—Copper Hill 92—Levant 81—Wheal Buller 29—Camborne Vean 24—West Briton 17—West Wheal Tremayne 17—Wheal Harmony 6.—Total, 1719.

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It also contains transverse and longitudinal sections of Dolcoath Mine (kindly supplied by the late Captain Charles Thomas); section of workings in Botallack Mine (supplied by the manager, S. H. James, Esq.); longitudinal sections of workings upon the main lode in Great Wheal Vor and Tresavean Mines; geological map of the Fowey district (supplied by Major Davis, R.M.); historical account of the Devon Great Consols, and of all the principal mines in the two counties.

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Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt: it then forms an accumulating useful work of reference.

PRACTICAL MINING MECHANICS.—I shall feel much obliged if any correspondent would give me the name or title of the best publication on Mining and Machinery suitable for Practical Miners.—MINER.

LINING LEAD PIPES.—"R. G." (Manchester).—There have been numerous propositions for coating the interior of lead pipes, in order to prevent the contamination of the water passed through them, but we are not aware of any process being commercially in use in this country. That to which "R. G." refers is, probably, that of Dr. H. Schwarz, of Breslau, which consisted in converting the interior of the pipe into insoluble sulphide of lead by means of sulphuric acid; it was not patented in this country.

GAS, AND THE LIME LIGHT—"R. J. R." (Wigan).—The substitution of the lime light for gas in the illumination of towns is altogether impracticable. The very nature of light prevents it. That a light equal to 960 candles may be had when the lime light is used for one-fifth the price for which the same quantity of light is obtainable from gas may be true, but the objection to the lime light is that it is indivisible, so that though a single flame, equal to 960 candles (supposing that amount of light to be required at a single point), would cost less from the lime light than from gas, the case is totally different when a diffused light is required. Let the cost of the single light mentioned be taken at 1*l.* per hour with the lime light, and at 5*l.* with gas, the difference would be in favour of the lime light. But if we want to illuminate 96 apartments, the equivalent of ten candles being sufficient for each, the lime light is quite worthless, because the equivalent of ten candles being unattainable with the lime light, we must use a 960 candle light in each apartment. Gas, on the other hand, could readily be distributed, and would, therefore, cost 1*s.* 0½*d.* for each apartment. Consequently, for the entire illumination required, the difference in favour of gas would be as 5*l.* is to 96*l.*

PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.—At the last annual general meeting the Chairman said—"That whenever sufficient money was in hand to declare a dividend, a dividend should be declared." The directors have in hand upwards of 9000*l.*, which, after putting aside 10 per cent. to reserve fund, would give a dividend of 1*s.* 6*d.* per share: and it may as well fructify in the shareholders' pockets as remain at the bankers.—A LARGE SHAREHOLDER.

GUNNISLAKE GRANITE COMPANY.—Will some reader kindly forward particulars of the position and prospects of this company?—ONE INTERESTED.

DOMESTIC GAS APPARATUS.—"H. C. F." (Whitehaven).—The invention of Mr. Milie, of Paris, requires no apparatus which would be at all unsightly in an office; it consists merely of a cylindrical tin box, with two orifices, one in the top and one at the side. The side orifice is connected with the burner, which must be considerably below the level of the box. The air enters the top of the box, and, after having become saturated with the fluid, passes on to the burner. There is, of course, very little pressure, and we do not know whether the fluid used could be readily or cheaply purchased.

MINING IN COSTA RICA.—Some time since reference was made to the projected formation of an English company for developing the Sacra Familia Mines, in Costa Rica, but although I have carefully watched for the prospectus, I am not aware that it has ever been published. Can any of your correspondents inform me whether the mines, which certainly seem to be of great promise, have ever been set to work?—R.

VENTILATION OF COLLIERIES—AIR-DOORS AND REGULATORS SUPERSEDED.—Without in any way complaining that the engineers of collieries fail to display great skill in the management of collieries, I would suggest that it is worth consideration whether the use of doors and regulators in collieries hereafter to be opened, for the system would be altogether impracticable in existing pits, might not be entirely avoided. We are told that the air will take the shortest course from the downcast to the upcast pit, and that a straight line is shortest, I would, therefore, propose that all new collieries should be opened in exactly square areas, and that these areas be as large as possible. If the area be one mile square, and the sides be due east and west and due north and south, respectively (I merely give this as an example), I would put down shafts at the extreme north-east and south-west corners; and, having done so, would put out levels along the north and the south boundaries for the entire mile. Upon reaching the south-east corner I would drive a level north-west, and upon my north level reaching the north-west corner I would drive another level south-east to meet the north-west level, already mentioned. I should then have a level somewhat in the shape of Z reversed. Up to this point of the operation bratticing would most undoubtedly have to be used, but once the communication effected all air-doors, &c., would be unnecessary; the north-east shaft would be made the upcast, and the south-west the downcast. I would now work from both sides of the diagonal level by the long wall way, and work both sides as near as possible equal, but would leave the coal near the north and south levels unwrought longer than that toward the east and west. Of course, I should have to lead my coal further, but I think I should be free from gas, and should be glad to learn the opinions of some of your other correspondents.—COLLIER.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, MAY 2, 1868.

THE SOUTH LANCASHIRE HUMILIATION.

Than the Earl of LICHFIELD no man in the House of Peers could see more clearly the gravity of the results which might hereafter follow upon the triumph of the mob in the Wigan district, confessed in the acknowledgment of certain of the influential county authorities that they were unable to extend protection to colliers who desired to work, and who, therefore, had to be sent back defenceless to their homes in Staffordshire. As Lord-Lieutenant of the last-named county his lordship had effectually upheld the supreme authority of law and order when disturbances were occurring in Staffordshire, and placing himself at the head of the police and military had spent whole nights in the colliery districts of the South, nor did he return to his home until every man who was willing to work received from the legally constituted authorities the fullest protection. From the first moment at which the authorities were called upon to interfere there was no wavering. The amplest protection was extended to the peaceable and the industrious, the riotous and the indolent were subdued, and security to person and property re-established. Before the assistance of the military was invoked detachments of police were drafted from the most remote parts of the county, the Chief Constable of the county and his best officers took the direction, and a party of Unionists had scarcely turned-out at 12, 2, or 3 o'clock in the night before they were either intercepted or, as in some instances, accompanied for miles along the roads skirting the mines by a body of policemen, whose presence was the assurance of the men who were going to the pits that they could do so with impunity. So incessant, vigorous, and effective were the operations of the police—and the borough forces combined heartily with the county constabulary—that the military were only invoked, and were maintained in the disturbed districts simply as a demonstration of the resolve of the authorities that the majesty of the law should at any cost be upheld. The soldiers were kept riding through the colliery neighbourhoods during the day, and were at call in the night. Although the policemen had to bivouac instead of going to bed when the Unionists were not on the move, and were, therefore, worn down with fatigue, yet there was no attempt at giving up—the worn-out men were recruited by officers from the rural districts, and there was no humiliating confession of inability to do what was expected of them.

A chief superintendent of police, who took an active part in those defensive operations in Staffordshire, remarked only on Tuesday last, in speaking of the Wigan defeat—"We would never have given up in that way here. If we had not had strength enough we would have got it. To confess themselves beaten may seem a small matter there, but by-and-bye it may lead here and in other districts to fatal consequences. Miners may be encouraged to pursue a similar course in expectation of similar results, and, the resistance of the police following, death may ensue on both sides." We give these remarks because of the position of their author. This must deprive them of all charge of unfounded civilian fear or class bias, both of which might possibly be charged against ourselves. Nevertheless, they are our own sentiments, and they were, beyond doubt, those of Lord LICHFIELD and his brother, Major ANSON, both of whom, from their respective seats in the Houses of Lords and Commons on Friday night, asked the representatives of the Government whether there was any truth in the report that the magistrates and police authorities of Lancashire had been unable, in the Wigan district, to protect workmen from assault, and that they had, through violence and intimidation, been forced to leave their employment? Whether it was true that trains conveying these workmen had been attacked with stones and slag, to the bodily injury of the passengers; and, if these reports were true, whether he could explain the cause of the failure on the part of the magistrates and police authorities of Lancashire to give that protection to workmen which every citizen has a right to expect in a free and well-ordered State? It is no reflection upon the Government that they were obliged to confess that all this was true. "I am sorry (remarked the Earl of MALMESBURY) to say—

It is true that the force for the protection of the persons to whom my noble friend alludes has been withdrawn, and they have, therefore, been obliged to return to Staffordshire. Mr. HARDY'S first intimation of what had occurred was from a deputation of coalowners, who yesterday morning attended before him, and stated the facts to which I have alluded. Immediate enquiry was made by the Home Office, and a report was sent to my right hon. friend by the Chief Constable, to the effect that he had not a sufficient force to maintain, as he had for some time done, the protection of these men; that the riotous conduct of the pitmen had extended; and that the force not being sufficient, had been withdrawn from that part of Lancashire. The same statement was made by the Mayor. Mr. HARDY, therefore, telegraphed to the Chief Constable and Mayor that he expected them to do their duty, to obtain more assistance, and to maintain the law. Furthermore, he applied to the Horse Guards for an increased military force; and I understand that a troop of cavalry, and about 300 infantry, are by this time on the spot to maintain peace and order. Beyond that I have no information. Mr. HARDY also communicated to the Clerk of the Peace in the Sessions now going on there that he expected the magistrates to use their utmost exertions to do their duty with respect to these riots."

The coalowners who waited upon the HOME SECRETARY acted with the self-respect and the promptitude which became them. We regret that they should have been compelled—before their representations secured the requisite protective force—to have sent back their Staffordshire hands. It is some satisfaction, however, to gather from the memorial which they presented to Mr. HARDY that the withdrawal of protection can hardly be charged upon the magistracy as a body, but rather upon individual members, who occupy prominent local positions, who took upon themselves a responsibility which belonged only to the Quarter Sessions—then indeed sitting—and which it is impossible to conceive that body would have ventured to assume, seeing that in doing so they would have abdicated the authority with which by their commissions they had been entrusted, and have given over this part of their county to the unchecked rule of armed lawlessness. We hope that no local jealousies have been allowed to operate in this matter. But if they have, the fact that one of the parliamentary representatives of the district took the chief part in the carrying out of the abdication policy increases the humiliation which South Lancashire has suffered. It may well be questioned how far such pusillanimity is a fitting ingredient in the qualifications of a legislator. The coalowners of the district must decide the question at the opportunity of which they will shortly be able to avail themselves.

But men of that class, either in South Lancashire or elsewhere, are not the only people who are interested in this question. The security of every interest worth preserving in the nation has been jeopardised, and not the least that in which the men themselves are mostly concerned. The private sympathies of the Lord-Lieutenant of Staffordshire are believed to lean in the same direction as those conspicuous in relation to his brother-in-law, Lord ELCHO, on whose behalf Major ANSON explained it was that he put the question in the House of Commons which we have given above. It is cause for congratulation that men influenced by views alike of a public and a private character, both of which have patriotism as their base, should be able to show how grave, on both grounds, they deem the consequences which may flow from what has happened near to Wigan.

That authorities elsewhere should not waver under similar circumstances has been our motive for giving this prominence to the temporary failure of authority in the South Lancashire coal field. Never again, we trust, will the Home Office have to be invoked, questions have to be put in the Houses of Parliament, and the local authorities in one of the most important parts of England have to be snubbed for conduct of which even a Justice SHALLOW and a DOGBERRY would be equally ashamed.

IRON TRADE DISPUTE IN SOUTH STAFFORDSHIRE.

Determined to suck their orange dry and then throw it away, the Unionist puddlers of South Staffordshire maintain the unequal struggle in which for three weeks they have been engaged. That their motive is as we have indicated we have no doubt whatever. Information that has reached us in the past few days fully confirms the statement to this effect which we made when the strike began. Employers have, through their managers, received communications from their men, to the effect that this is the object they have in view in remaining out; that it will be quickly accomplished, and that then they shall be at work again, henceforward untrammelled by Unionism. To so marked an extent has this been visible, that it has become known that Union districts have been discussing the propriety of dividing the funds in hand, and then splitting up. Those men are the most indifferent to resuming who, being fully paid-up members, are entitled to and receive 10*s.* a week; but, as they are aware, this is so heavy a drain upon the very reduced funds that it cannot last more than another week or two. Help from without there is very little. Even the ironworkers in the North are confining their aid to promises and —"protection." To the very uncertain source of casual help non-Unionists have to look for support. Money from the North was expected last Saturday night, but it was not forthcoming; it is promised for next Saturday, and certain of the delegates who have been to that part of the kingdom say that it will come. The promise will be realised, but to such an infinitesimal extent as to make it confirmatory of the character of Hope, which long ago we used often to hear "told a flattering tale."

Meanwhile, certain of the non-Unionist puddlers are following the example of the millmen—most of whom have resumed at a 10 per cent. drop—and are going in on masters' terms. They are being stimulated by the employment here and there of under-hands. Whenever such cases happen, the supplanted workmen, if they are Unionists, at once apply for their furnaces, and offer to leave the Union, or consent to almost any terms. A few employers are resolved to take on no men who are Unionists; and they will find no difficulty in carrying out their determination. If this strike should result, as we believe it will, most disastrously to Unionism in the iron trade, and instead of one grand alliance there should be no combinations to ally, then may both masters and men say of it:—

"Sweet are the uses of adversity;
Which, like a toad, ugly and venomous,
Wears yet a precious jewel in its head."

GALE'S NON-EXPLOSIVE GUNPOWDER PROCESS.

Some very interesting experiments have recently taken place in connection with Dr. Gale's well-known process for rendering gunpowder non-explosive and explosive at will. It appears that the Government, satisfied with the results of the famous Martello Tower experiments during the summer of 1866, and fully alive to the danger of allowing large quantities of such a dangerously explosive material as gunpowder to remain stored in the immediate vicinity of large towns and cities, have decided upon adopting the new process in the magazines at Purfleet and elsewhere. With this view Dr. GALE has recently been inspecting the various magazines, the results of his investigations being to show that the use of his invention will not necessitate any additional cost to the department, but, on the contrary, will effect a very great saving, the annual cost of the barrels in which the gunpowder is stored being alone amply sufficient to defray the whole expense of the protecting process. It is proposed that the gunpowder shall be mixed with the protective substance directly it is manufactured, and conveyed in its protected state to the various magazines, there to remain stored until it is ready for use. All possible danger, except that arising during the actual process of manufacture, would be at once avoided. That the essential properties of the protected gunpowder are not affected by long storage is shown by the results of recent experiments with some gunpowder lent specially by the Government. This gunpowder, which was of the strongest possible description—being the kind used for Armstrong guns—formed a portion of that used in the Martello Tower experiments before alluded to, and was contained in a barrel which bore traces of the intense heat to which it had been subjected. On being opened the powder and protecting material were found to be in as perfect a condition as on the day they were originally put in. It was found that there was no tendency to separate, imbibe moisture, or to cake together. The protective mixture could be instantaneously separated from the gunpowder, leaving the latter ready for immediate use. In its protected state the gunpowder was absolutely unexplosive. A portion of it was stirred with a red-hot poker, but refused to explode, although the grains took fire individually as each came in contact with the red-hot sur-

face of the poker. The separating machinery to be erected by Dr. Gale for the Government is patented by Mr. Childs; it consists of a revolving cylinder of wire-gauze, within which is fixed a peculiar description of screw, running about two-thirds the entire length of the cylinder, at equal divisions, and in a longitudinal direction, are fixed angular pieces of metal, which are termed lifts, and are used for the purpose of conveying the powder and dust a portion of the distance round the cylinder, and then letting it fall to the bottom, thereby precipitating the separation of the various particles; and, as the material is worked by the action of the screw towards the far end of the cylinder, these lifts scour, as it were, the surface of the grains of powder, releasing whatever dust might adhere to it. At the end of the screw portion of the cylinder is a partition of wood surrounded by a disc of cloth, for the purpose of intercepting any dust produced by the action of the screw. The powder is carried past this partition into the tail of the cylinder, and is there met again by more of the lifts and further scoured, afterwards falling through the end of the cylinder into a receptacle provided for the purpose, from which it may, if so required, be at once employed in filling cartridges, or stored in suitable casks. The protective material is also allowed to fall into a separate chamber, whence it may be conveyed by elevators, or other well-known contrivances, into the places provided for its storage. The machine is provided with a novel and most effective means of feeding it, so that by the simple turn of the screw the amount of feed can be adjusted with the greatest accuracy. By means of this machinery two men, if properly supplied, can separate 100 tons of protected gunpowder in a single day. The operation of separating is instantaneous and complete. The decision of the Government in favour of Dr. Gale's process will afford much satisfaction to those acquainted with the dangers attendant on the present system of gunpowder storage. The quantity of powder stored at Purfleet alone is more than sufficient to lay all London in ruins. Mr. Piper, of Threadneedle-street, has stated that he is prepared to recommend that no extra premium be charged by insurance offices for buildings in which protected gunpowder is stored, a circumstance of some importance, seeing that gunpowder itself is absolutely uninsurable, and that insurance companies, as a rule, decline to have anything to do with buildings in which it is placed.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY,

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

Mr. WM. FOTHERGILL COOKE, of Aberia, Wales, has specified an invention relating to the Tunnelling and Quarrying of Slate and other Minerals, and to the Machinery used for these purposes. The chief object of this invention is to combine and use with any cutting machine, by which an annular groove can be produced in the rock or mineral, a traversing machine on to which the cutting-machine, when it has made its forward cut in one tunnel (say, to the depth of about 2¼ ft.) and has been run back on its rails to the mouth of the tunnel, is received, and is by it shifted sidewise, in order that it may be run forward on to a second line of rails, and caused to cut a second tunnel parallel with and slightly intersecting the tunnel first formed. When the machine has made its cut in the second tunnel it is similarly run back and shifted sidewise by the traversing-machine, to be again run forward, and caused to cut a third tunnel, slightly intersecting the second tunnel; and if desired the machine may again be shifted sidewise for cutting another tunnel. Afterwards the machine is moved back, and again caused to cut in the first tunnel. A blast or shot hole can be driven from the leading tunnel across the natural split, or cleavage, of the slate (if slate is being worked) at the end of the cut in the tunnel next to it on its left hand, and thus a great saving of time is effected in removing the core of slate or mineral after the machine has made its cut.

Mr. SAMUEL DALTON, of Chester, has specified a patent relating to the Manufacture of Iron and Steel, and Furnaces employed in such manufacture. The patentee states, first, that pig-iron, as produced from the blast-furnace, or the same when refined, and known as plate metal, is melted in a reverberatory furnace, similar to those commonly in use for puddling and boiling iron, or the same is run in a melted state from the blast-furnace, or refinery, into such furnace, and suitable quantities of fluxes of the kinds ordinarily used in "boiling" and "puddling" are added to it; but instead of conducting the process as in ordinary boiling or puddling process to the making of "balls" or "blooms," the heat is raised as the boiling ceases, and the iron is melted and run into ingot moulds, similar to those used for making cast-steel ingots, instead of balling it up, as commonly practised. The furnace is constructed in a manner similar to that usually adopted for boiling and puddling iron, but the patentee recommends the employment of a fire-place rather larger than usual, in proportion to the rest of the furnace, such fire-place should be lined with fire-clay, or other fire-resisting material; the bed, or floor, is hollow, and has a flue under it, and heat is applied to the underside of the floor by conducting the escaping gases along the same before discharging them into the chimney, or the heat may be thus obtained by adding a separate fire-place and fire, for the purpose of keeping the bed, or floor, at the necessary temperature.

Mr. JAMES HARGREAVES, of Appleton-Within-Widnes, has specified some improvements in the Manufacture of Iron. The chief object of this invention is to improve the quality of iron. For this purpose the patentee states that he takes a solution of chloride of manganese, of such specific gravity that small coal will float upon it, and washes or agitates it in or amongst the small coal which is to be coked and added to the burden of the furnace. The coal is skimmed off, and after adding milk of lime to it, in such proportions as to decompose the chloride of manganese, and form chloride of calcium and protoxide of manganese, or without adding the milk of lime, though the patentee prefers to use such milk of lime, he employs it treated as aforesaid for the manufacture of coke, which coke is used in the manufacture of iron, in any blast-furnace or furnace of like construction, in the manner in which coke is usually employed.

LIQUID FUEL—UTILISATION OF COAL TAR.

Some attention has lately been directed to the use of liquid fuels, and more particularly to that known as dead oil or creosote, one of the products obtained by the distillation of coal tar; but the decomposition of coal tar can be effected by a process (which has been patented by Mr. H. PHILLIPS, of Exeter) so as to produce a very large quantity of gas, and at the same time a residuary product, which is valuable as a deodorising material, in which charcoal or carbonaceous matter exists in a state of minute division, its efficiency for such purpose being well known, and thus the entire constituents of the tar can be applied to useful purposes. The quantity of gas which has been obtained by this process exceeds 10 cubic feet from each pound of tar, or more than 1000 cubic feet from the tar produced from every ton of coals. In order to carry out this process, tar is mixed with dried earthy matter as fine as possible, the silt or mud found in many rivers and estuaries is well suited for the purpose after being dried, the object being to dilute or mix the tar with such matter in such proportion as to prevent the mixture from melting. Lime also may be used, but it is more costly, and there is no corresponding advantage in using it. The best preparations of tar and earthy matter will be readily found by a little experience. No extra plant or apparatus is required for carrying this process into effect in ordinary gasworks. It may be observed that in previous attempts to decompose tar it was first vapourised, and the vapour was then exposed to heated masses of broken bricks, lime, iron, &c., in retorts, the result in such case being a quantity of carbon deposited on the exterior of the heated masses, while a large portion passed on and formed deposits in the ascension-pipes, which embarrassed and defeated the process. By the mode of treatment proposed by Mr. Phillips it is claimed that the carbon remains diffused through the entire mass of earthy matter. The constituents are hydrogen and carbon. By decomposition these unite in new proportions, and the excess of carbon being fixed remains in the vessel where decomposition is effected (the retort), forming the scale therein.

The new process is said to provide not only for the reception or detention of the carbon, but a use also when detained. Mr. Phillips, in describing the invention, states that slaked lime in fine powder is well mixed with coal tar, in such proportion as to leave the mixture in a pulverulent state. This mixture being heated in retorts, such as are ordinarily used in gasworks, and at their usual temperature, the tar will be decomposed—a considerable quantity of carbon, which is not volatile, will be diffused through the mass of powdered lime, which forms a highly deodorising material, useful for ordinary purposes, and particularly for "dry closets." From the volatile constituents of the tar there is simultaneously produced a large quantity of highly illuminating gas. It has been long known that coal tar when decomposed is capable of producing gas in the proportion of 22,400 cubic feet from the ton of tar; a difficulty, however, has hitherto arisen from the retorts being quickly rendered useless by a deposit of carbon adhering tenaciously to them, the carbon being a very imperfect conductor of heat. By Mr. Phillips's process, now patented, the tar being diffused through the mass of lime renders the removal of the resulting non-volatile carbon from the retorts easy, the lime moreover becoming the recipient of the carbon in such a state as imparts to it a peculiar value as a deodorising matter, and from which carbon in a state of purity can be obtained if required. It is claimed that besides the deodorising powder, which will be worth at least the cost of the lime and the ordinary value of the tar, as the labour will be the same, the extra gas will be obtained merely at the cost of the coke used as fuel. The residuary product of carbon and lime is capable of being repeatedly mixed with an additional quantity of tar, instead of using fresh lime for every operation—the proportion of carbon increasing by each operation so carried out. Thus a saving in the cost can be effected, or an extra profit realised on every ton of coals used, and that, to a large extent, from resources and materials of small value already at the command of gas manufacturers.

OUTBURSTS OF GAS, &c., IN COAL MINES.

THE VALUE OF AN EFFICIENT SAFETY-LAMP.

A short time since a paper on this subject, having immediate reference to a very extensive issue of fire-damp which took place at the Strafford Main Colliery, near Barnsley, by Mr. PHILIP COOPER, was read at a meeting of the North of England Institute of Mining Engineers. In that paper Mr. COOPER dwelt with great force on the value of the Stephenson lamp when in an efficient state, it having at Strafford Main been severely tested by being exposed to an explosive current, moving at velocities from 200 feet, perhaps to 600 feet, per minute, without resulting in an explosion, the lamp being, on the contrary, quickly extinguished. In the same district, on Saturday last, there was an accident at the Mount Osborne Colliery, caused by a fall of roof many hundreds of tons in weight. Here, again, the "Geordie" lamp was found of the greatest benefit in ensuring the safety of the lives of the men at work. At Strafford Main the saving of the lives of 300 men and boys may be said to have been due to the lamps, for a defective one, let alone a naked light, would have led to an explosion, the effects of which would be awful to contemplate. With regard to such outbursts, Mr. COOPER, who as viewer at the Holmes Colliery has had considerable experience, says:—

"These outbursts have frequently occurred in the Barnsley, or South Yorkshire district, both in the Silkstone and other beds, and I believe most frequently in working long-wall or bank work to the rise. It is a matter for serious consideration whether such a mode of working, under such circumstances and liabilities, is a proper one to be pursued. It is, no doubt, a serious matter to alter the usual and general mode of working, but it does seem that in collieries liable to outburst of fire-damp, working on the rise edge of large goaves is attended with more danger from fire-damp than when working on the lower edges. It is also matter for serious consideration what description of safety-lamps should be used in collieries liable to such outbursts, for whatever kind may be selected, one important condition or requirement seems to be the quality of self-extinguishing when exposed to fire-damp."

Seeing that nearly all the collieries in South Yorkshire contain more or less accumulations of gas, and that it has been known in some instances to rush out with all the force of high-pressure steam, the necessity for adopting the opinions enunciated by Mr. COOPER and others relative to the safety-lamps used will be apparent, as well as the positive isolation of the return air from contact with the ventilating furnaces. It is fearful to contemplate how many accidents from explosions, caused by some trifling defect even in an efficient safety-lamp, have led to great sacrifices of life—hence the great importance of a real safety-lamp, and one which the miner would be unable to tamper with.

PRESENTATION TO A MINING ENGINEER.

On Tuesday a highly influential gathering took place at the King's Head Hotel, Barnsley, for the purpose of presenting Mr. W. A. POTTER, mining engineer, who for several years past has had the management of the Mount Osborne and Old Silkstone Collieries (but who leaves the district to superintend the Cramlington Collieries, near Newcastle, in which his family is largely interested), with a testimonial, in appreciation of the estimation in which he is held by his professional and other friends in Yorkshire, Derbyshire, &c. The proceedings were inaugurated by a *recherche* luncheon, at which there were present, among others, Messrs. E. Newman, J.P., R. C. Clarke, J.P., W. Stewart (Lund Hill), W. H. Peacock, R. C. Thorpe (North Gawber), T. W. Embleton, J. Neville (Skellbrook Park), W. Day (Monk Bretton), C. Newman, &c. After the repast, the chair was taken by Mr. C. Newman. The presentation plate consisted of a superb dinner service in silver, comprising a soup tureen of the style peculiar to the George the Second era, on pedestals springing from lion's heads, the handle of the cover being a lion recumbent; four dishes and covers, the latter having moveable handles, so as to form four further dishes. The weight of the entire service was upwards of 400 ozs. On the principal piece was engraved:—

"To WILLIAM AUBONE POTTER, on his leaving South Yorkshire, after 14 years' residence; from a few friends who regret his departure. April 28, 1868."

On commencing the proceedings, the Chairman read letters from the following gentlemen, regretting their inability to be present:—Messrs. J. T. Woodhouse, Derby; T. E. Taylor, J.P., Dodworth Hall; J. Chambers, Thorncliffe; J. A. Mann, Darley Hall; E. Booth, Silkstone Fall; J. Fawcett, Wakefield; T. White, Wakefield; R. Craik, Barnsley; W. P. Maddison, Dewsbury; H. Richardson, &c.

The CHAIRMAN then said, as one of Mr. Potter's earliest friends, he had very great pleasure in presenting to that gentleman the service of plate before them, more as a friendly *souvenir* than as a testimonial in the ordinary sense of the word. He then referred, in appropriate terms, to the high estimation in which Mr. Potter was held by his professional brethren, as well as by all classes in the district, and concluded his remarks by saying that if the presence of the gifts on Mr. Potter's table should recall a pleasant remembrance of his residence amongst them, he was sure the contributors would have their reward. Capt. Clarke, Mr. Day, and Mr. Embleton also expressed their high appreciation of Mr. Potter as a competent and skilled mining engineer, and as a gentleman they should ever have the greatest pleasure in meeting.

Mr. POTTER, in acknowledging the kindness of his friends, as evinced by the superb testimonial they had just presented him, feelingly alluded to the kindnesses he had always received in the district, owing to which he had become thoroughly attached to it. He assured them that, such being the case, he should not have left, but that circumstances had occurred which rendered it an imperative duty that he should take charge of collieries in the North in which his family were largely interested. He trusted that he might frequently have the pleasure of welcoming those present, as well as his other friends, to his new home. Mr. Potter concluded, amid the hearty cheers of the company, by expressing his heartfelt thanks for the kind feeling evinced towards him, as shown by the handsome present of which they had made him the recipient.

COAL FOR THE NAVY.—In the House of Commons, on Thursday, Mr. HEADLAM asked whether it was correct that in the form of tender issued by the Admiralty for coals to be supplied to her MAJESTY'S dockyards for the year commencing May, 1868, for the use of the steam-vessels in the Navy, the only coals named therein were those from Wales; if so, why, after the reports made at Devonport, and the recommendations contained therein, as to the use of North Country coals in her MAJESTY'S ships of war, these have been excluded? Lord H. LENNOX said the right hon. gentleman was quite correct. The Admiralty have this year reverted to the policy of supplying nothing but smokeless coal to steam-vessels in the Navy. This decision was arrived at in consequence of the strong representations received by them from the commanders-in-chief of the foreign squadrons, setting forth the great advantages possessed by the smokeless coals for all purposes of steam navigation. He might tell the right hon. gentleman that bituminous coal is still on the Admiralty List, and is largely used for dockyard purposes.

COAL AND IRON IN HOLLAND.—The total quantity of coal imported into Holland in January was 56,540 tons, against 68,080 tons in January, 1867, and 81,740 tons in January, 1866. The imports of coal from Great Britain into Holland amounted in January to 2140 tons, against 2120 tons in January, 1867, and 4810 tons in January, 1866. Prussian coal was imported into Holland in January to the extent of 45,020 tons, against 55,820 tons in January, 1867, and 60,890 tons in January, 1866. The total value of the cast-iron imported into Holland in January was 69,000 guilders, against 262,000 guilders in January, 1867, and 211,000 guilders in January, 1866. To these totals Great Britain contributed 65,000 guilders in January, 1868, against 227,000 guilders in January, 1867, and 148,000 guilders in January, 1866. Wrought-iron was imported into Holland to the value of 158,000 guilders in January, 1868, as compared with 112,000 guilders in January, 1867, and 287,000 guilders in January, 1866. The imports of wrought-iron into Holland from the United Kingdom were valued in January at 75,000 guilders, as compared with 46,000 guilders in January, 1867, and 97,000 guilders in January, 1866. Belgium delivered wrought-iron to Holland in January to the value of 77,000 guilders, as compared with 65,000 guilders in January, 1867, and 190,000 guilders in January, 1866. Nearly the whole of the iron rails imported into Holland in January came from England.

REPORT FROM NORTHUMBERLAND AND DURHAM.

APRIL 30.—The Coal Trade has shown some signs of renewed activity of late, considerable quantities having been shipped, both foreign and coastwise. This seasonable supply of tonnage has enabled the bulk of the collieries to be worked at a moderate rate. Of course the reduction of stocks has not yet taken place to any great extent, and some time must elapse before the trade can resume its usual state. On the whole, the iron and shipbuilding works on the Tyne are improving, and many of them are now well employed, and also have sufficient work on hand to keep them employed for some time to come. At Messrs. Hawks and Co., Gateshead, pretty large orders are on hand for chains and other ironwork; and at Messrs. Abbot's works they have considerable orders. These works are better supplied with orders than they have been for some time. The Iron Trade, that is, pig-iron and manufactured, continues very quiet, and prices are with some little difficulty maintained. The present quotations are—No. 1, 47s. 6d.; No. 3, 43s. 6d.; No. 4, 42s. 6d., nett cash. The Ironmasters' meeting, on Tuesday, at Middlesborough, was more numerously attended than has been the case for the last fortnight. A fair amount of business was transacted, though, on the whole, the trade is quiet. Shipments are now tolerably heavy, more especially for Holland, Belgium, and Scotland. To the latter district large quantities of iron continue to be forwarded regularly, and additional steamers have been put on this particular trade. The demand for the Staffordshire and Lancashire districts is dull. For manufactured iron, the orders coming to hand are only of moderate amount, and prices still rule very low. Shipbuilding iron is in more demand than rails. It is expected that a quiet, steady trade will be done during the quarter.

A general meeting of the North of England Institute of Mining Engineers will be held at the Neville Hall, in Newcastle, on Saturday, when several new members are to be elected, and also some graduates. The discussion "On the Consumption of Smoke" will be again resumed. This, it is hardly necessary to remark, is a most import subject, and one that is attracting much attention. A useful and important discussion may, therefore, be anticipated.

The sixth annual meeting of the Northumberland and Durham Miners' Permanent Relief Fund is also to be held on Saturday, in the Athenæum Library Rooms, Durham. This important society continues to prosper and progress, and a most successful meeting will, no doubt, be held. After the completion of the routine business a public meeting is to be held, to be addressed by several gentlemen belonging to the district.

Mr. Henry Lawrence, head of the engineering department, Walker Ironworks, has been presented with a magnificent gold chronometer watch and appendages, on the occasion of his leaving the employment of Messrs. Losh, Wilson, and Bell, to undertake the duties of manager of the Grange Ironworks, near Durham. Mrs. Lawrence was also presented with a silver cruet-stand and a pair of elegant fish-carvers. The chair was filled by Mr. W. Miekle, of Newcastle, and the vice-chair by Mr. John Thomas, manager of the rolling-mills. The presentation was made by Mr. Pringle, foreman pattern-maker.

IRON AND STEEL FROM CLEVELAND.

Assuming that those connected with the iron trade of the Cleveland district recognise the importance of being able to produce the best possible quality of iron and steel from Cleveland ore, they are entitled to the most sincere condolence for the unenviable position in which they have been placed by the angry and personal remarks made at the Cleveland Institution of Engineers upon the paper by Mr. HARGREAVES, on "The Manufacture of Iron and Steel from Cleveland Ore." Mr. Gjers may, perhaps, be justified in using his best efforts to prevent the success of a rival inventor, but he is not justified in referring to a paper which has been accepted by an English learned society by remarking that "papers of the kind got up expressly for the purpose of making public doubtful patents are not, I think, proper subjects to bring before our meetings;" and more especially so when the statement is so opposed to fact that one of the members (Mr. Whitwell) was compelled, by the bitterness displayed, to interrupt the discussion, to say that "it was only fair to state that Mr. Hargreaves did not come forward to make known his inventions, but by the special request of the Cleveland Institution of Engineers." The real cause, however, of the opposition is readily discernible from a careful analysis of the discussion. Messrs. Gjers and Jones have a rival invention not yet tested (and the latter gentleman was compelled to admit that by the introduction of one of Mr. Hargreaves's improvements—that of casting pig-iron in something other than common sand—enabled them to make a better yield, and to get through with their work a little quicker), whilst Mr. Crossley, the principal other opponent, tried a similar but less perfect process some six years since, and failed.

In the paper of Mr. GJERS, the chemical argument used against Mr. Hargreaves is one which only requires reading to expose its fallacies. After stating that he considers it quite clear that Mr. Hargreaves understates the quantity of nitrate that would be required, he says—"Take (say) our Cleveland pig-iron, containing 4 per cent. of carbon, 2 per cent. of silicon, and 1¼ per cent. of phosphorus, then 2240 lbs., such pig-iron contains:—3½ per cent. carbon=78·4 lbs.+208·0 lbs. Oxygen=CO^2 requires 465·25 lbs. nitrate: 2 per cent. silicon=44·8 lbs.+50·3 lbs. Oxygen=SiO^2 requires 112·25 lbs. nitrate: 1¼ per cent. phosphorus=28·0 lbs.+36·1 lbs. Oxygen=PO^5 requires 80·50 lbs. nitrate. The above calculation is using a nitrate of 95 refraction, and removing all the silicon and phosphorus, but leaving ½ per cent. of carbon. It is done on the supposition that every atom of oxygen in nitric acid has done its full work in oxydising the impurities, which is not the case, as plenty escapes as nitrous oxide, NO^2. It is, however, showing the most favourable case for the nitrate process, going on the supposition that the phosphorus as well as the other impurities will combine with oxygen as readily as Mr. Hargreaves believed. Now, such nitrate of soda costs 12l. a ton, and it would consequently take at the very smallest calculation 3l. 10s. 6d. worth to every ton of iron, a cost which, except fluid ingots could be run direct, is inadmissible. Mr. Hargreaves, indeed, proposes to economise by mixing oxides of iron and manganese with the nitrate, but Mr. Hargreaves having, with the use of such material in his own experiment, failed to produce even an approximate to the result claimed, I think I may fairly leave the matter on its own merits, and with the facts before you, I think you will be able to conclude if the nitrate process is likely to stand, or if it will fail. . . . . I shall not pretend to go into Mr. Hargreaves's calculations as to the profit likely to arise from the removal of phosphorus from the Cleveland ore. Neither are such notions new, but, as a practical man, I must confess that the chemist's notions of removing phosphorus from small quantities of ore when they come to be applied to the enormous quantities of, perhaps, 100,000 tons of ironstone a week, are, to my mind, simply preposterous. As to the sulphur in the coal, we have practically no great difficulties with it, and as a proof our pig-iron contains no objectionable quantity. Still, I am ready to admit the less sulphur the better. Coal washing is at the present day, particularly on the Continent, so well understood and carried out to a great state of perfection, that Mr. Hargreaves has failed to prove that he has added any valuable information to the subject. As to the sand, surely Mr. Hargreaves is aware that it is a practice of very old standing to run the iron into iron moulds (Lizer iron, so called), and also in coke ashes for the very recognised reasons he mentions. As to the imaginary iron ore for moulding on with numerous impossible conditions, Mr. Hargreaves has failed to point out where it is to be procured from. I can inform Mr. Hargreaves that the true reason the cheaper pig-irons continue to be run in the generally cheap material sand is the great competition and low prices of iron, which will not allow manufacturers to put an extra cost on their iron, for which consumers are not willing to indemnify them."

The attack was well replied to by Mr. HARGREAVES, who explained the instructions he received from the secretary as to what the contents of the paper should be, and then observed that there had been one or two matters discussed that evening with respect to practical ironwork, and some of the members seemed extremely puzzled that Mr. Whitwell should take out nearly as great a weight of iron as he put in. They were astonished at what was a very simple fact. Suppose they had iron containing 3 per cent. of carbon. This came in contact with some free oxide of iron, which reduces it to a metallic state. There is no metallic iron contained in that state; but let them take from 40 parts of oxide of iron 12 parts of oxygen, and what did they get but 28 parts of iron. This acted as a reducing element, so that the comparative increase of puddled iron over the cast-iron put into the furnace was perfectly easy to account for. It was a plain and simple fact, which any chemist would easily understand. Several parties asked him at the last meeting if phosphorus was extracted when he was simply making refined metal. Phosphorus in such a case was not extracted. He distinctly stated that it was not to a great extent extracted from the refined iron; but there was such a thing in phosphorus as allatropism, which altered its condition, and thereby secured the extraction of the phosphorus with the greatest facility. Referring to the allegation that he depreciated the value of analysis, Mr. Hargreaves stated that as a chemist he knew the physical properties of iron were varied by its chemical composition; but if he obtained a certain physical state, and was certain that by a particular process he could obtain that state, what was analysis to him, except so far as the chemical composition of the metal influenced the physical properties of the iron? He had made very few analyses in this process, only such as were necessary to guide him in what he was doing. He had not at present the requisite facilities of carrying out proper analyses himself. He showed a piece of puddled iron produced from what was refined at the works of Head, Wrightson, and Co., South Stockton, at the last meeting of the Engineers, which showed the state of phosphorus to be such as to leave the puddled iron without any trouble at all. In illustration of his theory he produced and handed round the room, in order that its suitable physical condition might be seen, a piece of iron, an analysis of which had been

made for him by Mr. Stock, of Darlington. It was much more tenacious than the ordinary puddled iron, and, in fact, showed physically very few indications of phosphorus, although chemical analysis proved that if phosphorus did exist in it, it was a mere trace. The condition into which phosphorus was thrown was such, however, that on being presented to the tap cinder it was removed with the greatest facility.

Mr. WHITWELL showed a piece of iron which had been re-piled and rolled out of puddled bar made at the Thornaby Ironworks. The same piece had been sent to Mr. Stock, of Darlington, to analyse, and showed plainly that whatever phosphorus there might be in Cleveland pig, it had been in this process so far removed that there was only 0·0032 per cent. in the bar. The question then arose where did the phosphorus go to? And the cast steel contained 0·129 per cent. ——Mr. JONES contended that the phosphorus was taken out in the puddling. If iron were well puddled they would practically remove every trace of phosphorus in one process.

Mr. GJERS contended that a piece quite as good in appearance could be made from grey pig. Mr. Hargreaves declared that he could make steel by one process. He had never done it yet, and never would do it. He would never be able to run a fluid ingot from his ladle; and had not been able to prove that he did so. The steel he showed was made first by puddling, and then by re-melting in a crucible. But this was not the process he took his stand upon.

Mr. JONES asked Mr. Hargreaves if he could raise sufficient heat to keep the steel in a sufficiently fluid state when it was only 3 per cent.? Bessemer failed with 3¼ per cent., and he did not see how Mr. Hargreaves could succeed. He was dealing with a lesser percentage of carbon, his process was imperfect, and yet he was going to accomplish that wherein Bessemer had failed.

Mr. GJERS wanted to have a clear understanding about the cast steel. Mr. Hargreaves had told them that it was done on Newport plate, melted in a cupola, and poured into a converter.——Mr. HARGREAVES said the melting was done in a puddling-furnace, and the steel was poured into a bogey from the converter. Owing, however, to the small quantity operated with, and to the proportionally great radiation of heat, it did not run perfectly solid. It was re-fused in the crucible, and then poured out into an ingot mould, and treated in the usual way. It never went into a puddling-furnace after going through the converter.

Mr. JONES: Then it has been hammered or drawn down after it went into the crucible?——Mr. HARGREAVES said this was the case. After making a few remarks in corroboration of his previous explanations, he went on to remark that Mr. Bessemer had no free base to combine with phosphorus. In a private conversation between himself and Mr. Crossley, the latter stated that it was impossible to remove the phosphorus by the use of bases. He then asserted that phosphorus was removed from the iron by bases, and by bases only.

Mr. J. STEVENSON considered that Mr. Hargreaves was entitled to some credit for introducing something other than common sand. The process was perfectly practicable; and they had found no difficulty in casting the pigs in a mixture of calcined ironstone and ashes. Their only discouragement in carrying out the practice was that it was not appreciated by manufacturers of iron. They had sent samples of what they might call patent pig to several bar iron manufacturers, and they found very few of them willing to give anything towards the extra cost incurred in making it in the way he referred to.

The CHAIRMAN, in closing the discussion, remarked that several gentlemen were at present making experiments in the manufacture of steel, and their mouths being thus closed, they did not give their real opinion on the subject. They were all driving at poor Mr. Hargreaves, which was hardly fair, as he could not get much out of them. He hoped that by the end of six months, when they opened the next session, that seal would be taken off their lips, and that they would thus be enabled to discuss the matter with more freedom.

REPORT FROM SCOTLAND.

APRIL 29.—Over the whole Scotch ports there are indications of a better trade this week in Pig-Iron, the shipments from Grangemouth, Leith, and Ardrossan being very considerably in excess of last year, while the aggregate foreign exports of this week nearly equal the total foreign and coastwise shipments of the same week last year. An analysis of the shipments, however, show that while there is a legitimate excess at Grangemouth and Leith, those from Ardrossan (nearly 4500 tons) are principally coastwise, and have been shipped by the Messrs. Baird and Messrs. Merry and Cunningham to English ports on consignment. Makers are, therefore, the surplus sellers, brokers doing only a limited business, although the foreign and coastwise shipments reached 17,000 tons this week, against 12,485 tons in the corresponding week last year. During the last few days five outed furnaces have been put in operation, making in all 114 in blast, against only 105 in the same week last year. Of the five newly lighted, two are at Coltness, one at Castlehill, one at Dalmellington, and one at Shotts; this will do a little good, but only a little. The Pig-Iron Market opened this week a shade better, and yesterday 1d. per ton advanced was established; and to-day the same good feeling prevailed, and about 4000 tons were done at 52s. 4d. to 52s. 5d. cash, and 52s. 6d. a month; closing buyers, 52s. 4d.; sellers, 52s. 5d. cash. No. 1, g.m.b., 52s. 9d.; and No. 3, 51s. Makers' iron—Coltness and Carron, 57s. 6d.; Gartsherrie, 56s.; Summerlee, Calder, Langloan, and Glengarnock, 55s.; Shotts, 54s. 3d.; and Govan and Chapelhall, 54s. The makers of Finished Iron are again experiencing a lull in the demand, and buyers are very shy, intimating that *when* they have orders to offer they will look for a reduction of from 5s. to 10s. a ton on present prices. Makers complain that they have formerly been in the habit of booking as many orders in a week as they are now doing in a month; and are, in present circumstances, ready to book orders of the most trifling descriptions, which on former occasions they would not have been at the trouble of shifting their "rolls" to accomplish at greatly enhanced prices. With makers it is now a struggle for work. On account of the extra shipbuilding on the Clyde, there is a rather better demand for rivet iron, but this is being so largely supplied by Workington firms that it is making no difference to the trade here. The quotations, f.o.b., here are still nominally 7*l.* for Blochairn, North British, Glasgow, and Govan brands; and 6*l.* 15s. for Rochsolloch, Monkland, Coatbridge, Muirkirk, Drumpellier, &c., brands. The specifications for angle-iron are not yet exhausted, and large quantities are being daily delivered at the various shipyards on the Clyde. Large forgings and castings are giving additional work to our engineering and ironfounding firms.

The spring shipments of Coal are now nearly completed, and the demand which existed on that account is rapidly drawing to a close. Owing to the awkward competition between coal and ironmasters for these and other shipping orders, as before noticed, the trade has been greatly injured, and will only be righted by the ironmasters occupying their own sphere. The few additional furnaces which have been lighted are in the right direction, and, besides giving employment to a hundred or two additional hands, will consume a portion of the output which was being hurried into the sale market. Prices are now quoted at 5s. 6d. to 6s. 6d. a ton, f.o.b. here; at same period last year some qualities realised 7s. to 8s. 6d. a ton. Gas coals have been been reduced 2s. 6d. per ton; but as we are just entering on the period when new contracts are made for the winter supply these quotations may be advanced, without much preliminary negociation. The price of manufactured gas was raised in this city, *pure et simple*, on account of the enhanced price of the raw material, and there is a strong feeling of dissatisfaction expressed that, while our gas companies here are realising 10 per cent. for their capital, they will not cheapen the price of gas to the consumer. The shipments of coals during the week were 30,230 tons, against 24,580 tons the same week last year. These shipments were chiefly to Mediterranean and Baltic ports.

The miners, disappointed, perhaps, with their Union, have betaken themselves to the local press to let their wants be known, and we have during the last few days had a regular tumult of correspondence from *knowing* editors, "Sincere Friends," "Old Colliers," "Coalmasters," &c., but the whole thing was only a *seance*—a "beating of the air." Mr. McDonald, fertile of resources on all occasions, has also entered the lists, and delivers himself oracularly in the following terms:—

"To my mind the proper course to pursue is for all to send delegates to the conference to consider the following things:—1. The propriety of having a complete county meeting of Lanarkshire, say in two or in four weeks from this date (April. 22).—2. In the interim, let it be arranged that a monster delegate meeting be held in the same place on that day fourteen days—a delegate from each colliery. At the present a delegate from a district is worth nothing; each work should have its own representative by the time of the monster delegate meeting. The feeling would be fairly got at when the great meeting would take place.—3. The question of a general levy of 1s. a man before the meeting should be at once considered—that shilling to be spent in sending men to Fife, Clackmannan, Linlithgowshire, Stirlingshire, Dumbartonshire, Renfrew, and Ayr, to have their opinion also. If you prefer starvation to consulting as a class, remain as you are, and see the means of living pass from you, as it is doing now. The conspiracy of the ironmasters to reduce you will continue till you destroy it. In the meantime, let every man that can find employment at any other work betake himself to that. Hundreds now go to the Far West, others go to England. Let us see 10,000 less miners in a month, and we promise you deliverance from the present state of things in another. Meanwhile, let the fiery cross be raised as of old—let it be held so high that it may be seen at Tinto with the words 'More bread—more bread,' and short time. Let it be so high that it will be seen at North Berwick Law; and let the miners of the two eastern counties, with their brothers in the West, cry 'More bread!' Let the shout be made at the same time from the East Nuek of Fife to Ochill Hills, and from that through Linlithgow, Stirling, and on to the Sands of Ayr. The cry properly made for one month, the remedy will be announced in that period that will ensure a restoration of part of the reductions that have been made of late—A. MCDONALD."

The "Fiery Cross" is something new to the poor collier, and will, no doubt, take his fancy; but how a "fiery cross," held ever so high, and inscribed with "more bread," will bring bread to the starving, requires some ingenious explanation. It requires the credulity of childhood to gulph such nostrums. Suppose the miners were reduced 10,000 in a day, would that impart vitality to the trade, or reduce the thousands of tons of coals in stock to a minimum in a month, or even in three months? In making statements of this kind, Mr. McDonald seems to be imitating the archer, who

"Threw an arrow into the air,
And it fell—he knew not where."

If the colliers would quietly work on, they would not fail to realise the turn of the market as speedily as they are likely to do by heart-burnings and strife. Our shipyards are cheerful, with an increasing activity, and hull on hull cover every available space in several places on the Clyde; while some builders are compelled to work extra time. The quantity of iron being consumed must be considerable, and cannot fail to tell on the quantity for the year. Yesterday there was launched an iron ship (the Candidate) of 800 tons, for the San Francisco trade; she is the property of Capt. J. Gambles, of Harrington.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

APRIL 30.—The reduction of wages in South Staffordshire has been accepted by many of the millmen and more puddlers than had gone in last week. Meetings to encourage resistance, however, are held; there are real promises of support from the North, who having declined to fight their own battle when their wages were reduced, seem disposed to encourage their brethren in the South to fight it for them. The prospects certainly are that the resistance will die out. It is hard to stay at home and "clem," as people call starving in this part of the country, but it will be still harder when other men are at work and getting more wages than they have for some time. The shortness of orders has long reduced work to some three or four days a week; but now the few who are in are getting full time, which makes the reduced rate of wages comparatively good. The masters say they can wait for puddled bars for six weeks. At some small works the men are working at the reduction, on an agreement to adopt the rate that shall prevail; but this is always the case.

The demand for Iron is only quiet, and there are not a few who deny any improvement. The Old Hill Colliery and blast furnaces, near Dudley, have been sold by the executors of the late Thomas and Isaac Badger to David Rose, of the Albert Ironworks, Moxley. It is said the price is 17,500*l.*, which is regarded as low. It is also stated that the collieries and furnaces are to be set in operation at once.

A rather startling circumstance occurred a few days ago at Cinder Hill, on the road from Wolverhampton to Dudley, and about a mile from the former town. Vast excavations for limestone have hollowed out caverns 200 yards deep from the surface, and leaving openings 60 feet high from the floor, the roof of which was supported by pillars. Gradually these have given way, and on the day in question there was a rapid subsidence. A hedge and pathway 500 yards long, a tree 40 feet high, and a heap of clay prepared for bricks by a poor man, whose house is near, and is anything but safe, disappeared, leaving a great depression. How far it may extend no one can say, as the old workings cover several acres.

One of the most reckless acts even a collier ever committed caused the death of a lad, named Abraham Pritchard, on Saturday morning last. The lad was at work at the bottom of the pit, when a miner, named John Pritchard, actually, without a word of warning, threw a piece of timber from the top, which hit the lad as he fell, trying to get away, and caused his death. He has been, of course, committed for trial to the Assizes.

Some weeks ago an inhabitant of Bilston took proceedings to compel Mr. Samuel Holloway to consume the smoke at the stack of his colliery engine. The case was adjourned, to enable the defendant to try to consume the smoke; and at the Petty Sessions, on Tuesday, the complainant withdrew the summonses, explaining that the consumption was now complete. Various methods had been used without the desired result. At length the method in use at Messrs. Harper and Tildesley's, at Willenhall, the patent of Mr. Bird and Mr. Tildesley, was tried, and, he was glad to say, had worked with every success. Further, he believed that in six months the saving in fuel resulting from its use would pay for the adapting of the apparatus to Messrs. Holloway's boiler fire.

REPORT FROM MONMOUTH AND SOUTH WALES.

APRIL 30.—For several successive weeks it has been announced that a better feeling prevailed in the Iron Trade, not from any decided increase in the demand, but owing to a general belief that henceforth better days will dawn upon this important branch of local industry. It is true there has been a slight increase in purchases on both home and foreign account; but the improvement referred to is more attributable to expectation than to an actual addition in the requirements of buyers. The exports for the month of April will, it is believed, show a considerable increase over the returns of the previous month, the principal clearances being, as usual, to the United States. Now that the Russian season is open, great hopes are entertained that the demand from the markets of that country will exceed that of last year, and already several orders are on the books. It is found, however, that continental makers are competing very keenly for the contracts offered, and this circumstance will, it is feared, operate as a check in preventing higher prices being obtained. The new commercial treaty with Austria will probably send some additional engagements to this country, for railway extensions on a large scale are in contemplation. Home specifications are not offered with much freedom, the railway companies still confining their purchases to immediate necessities. Pigs of the best brands are in fair request. The majority of the Tin-Plate works are well employed, and tolerably well off for orders.

Steam coal merchants report an average export enquiry, the principal shipments being to the French markets and the mail packet stations. For house qualities there is a moderate demand. In Monmouthshire the strike continues, and the conduct of the men has of late become rather violent, owing, no doubt, to the introduction of fresh hands. About 100 of the colliers, and a number of the bank-women that were brought down from Bilston, have gone to work at the South Wales Colliery Company's pit at Abertillery, and they have expressed themselves well pleased with the wages paid and accommodation provided for them. Messrs. Payne and Co. are also about to accept the services of men supplied by the Free Labour Society, so that unless the old hands soon give way they will be obliged to leave the district altogether. The managers of the Ebbw Vale Company have consented to give the discharges asked for, and it is understood that the men occupying the company's houses at Abercarne will, in return, leave their dwellings within one month. Within the last day or two it is rumoured that a number of the turn-outs are disposed to give way, and it is probable that another week or two will witness the gradual breaking up of the strike.

At the Caerphilly Petty Sessions, on Tuesday, Benjamin Richards and six others were charged with assaulting and beating several of the Cornishmen who had lately come to work at the Rhos Llantwit Colliery. Mr. Morris, of Cardiff, appeared for the complainants, and Mr. Bradgate, of Newport, for the defendants. After considerable evidence had been offered on the part of complainants, Mr. Bradgate contended that, although there might have been a row, and an assault committed, the defendants were not the guilty parties, as none of them were colliers, and were quite independent of such work. Taking into consideration the contradictory evidence of the complainants and their witnesses, a very great question of doubt arose, and he asked the Bench to give his clients the benefit of that doubt, and dismiss the cases. After hearing the evidence of the witnesses called for the defence, the Bench retired to consider the cases, and were absent one hour and a-half. On their return, the Chairman said, inasmuch as there was a certain feeling shown by the Caerphilly men towards the "knobsticks," as the new hands are termed, they were determined to make an example of the defendants, as they believed the statement made by complainants and their witnesses were true. Mr. Bradgate submitted that the preponderance of evidence was in favour of the defendants, but after what had fallen from the Bench, he was bound to submit to their decision. The Chairman said at first they thought of committing the defendants to gaol without the option of paying a fine, but they had taken a more lenient view of the case, and Davis, for the two assaults, would have to pay 3*l.* 17s. 6d.; Benjamin Richards, 1*l.* 14s. 9d.; William Haynes, 2*l.* 14s. 9d.; and John Haynes, 1*l.* 13s. 9d. Two of the summonses were dismissed.

Mr. John Homfray, jun., son of Mr. John Homfray, of Penlline Court, Glamorganshire, has been selected a director of the Taff Vale Railway, in the place of Mr. Rowland Fothergill, resigned.

Great rejoicings took place at Cyfarthfa on the day Mr. W. T. Crawshay, eldest son of Mr. R. T. Crawshay, and heir to the extensive estates and ironworks of the Crawshay family, attained his majority.

The arrivals at Swansea include—the Warrior, from Cagliari, with 873 tons of zinc ore, for H. Bath and Son; the Pacquerrette, from Santander, with 130 tons of zinc ore, for Richardson and Walters.

LAUNCH OF A STEAM DREDGER.—Another steam iron dredger has been successfully launched from the yard of Mr. R. H. Michell, Mount Stuart Ironworks, Docks. This splendid piece of iron maritime architecture is 100 ft. long, 27 ft. beam, 12 ft. depth, and is capable of carrying 300 tons of coal in her bunkers. There are several new and novel features in this dredger, which have been suggested by the great practical experience of the owner and builder. She has three screws instead of one, which will enable her to be propelled in comparatively shallow water, fitted with patent tumblers, and the ladders are made so as to lower on the deck in the event of the vessel putting out to sea. She is fitted with two condensing engines of 25-horse power each, which can be made to work on the dredging machine or on the screw at pleasure. Before launching she had her engines, boilers, and ladders all fitted, so that in the course of a fortnight she will be ready for sea. The whole of the machinery, boilers, ladders, as well as the vessel herself, were manufactured by Mr. Michell. She will be first employed on a contract in the River Bann, in the North of Ireland, and is guaranteed to dredge 3000 tons in 10 hours. She is altogether a "Novelty," as her name denotes, and we congratulate Mr. Michell on the successful launch of an important undertaking, combining as she does the properties of a dredger and a screw steamer.—*Cardiff Times.*

REPORT FROM DERBYSHIRE AND YORKSHIRE.

APRIL 30.—The Iron Trade of Derbyshire continues comparatively dull, still there appears to be a strong feeling that it has been at its worst, more especially as the disagreements existing in other districts must tend to the diverting of orders into other iron-making localities; as it is, however, a good deal of pig continues to be turned out, so that manufacturers are prepared to meet any sudden demand which may be made on them. A considerable quantity of the red ironstone continues to be forwarded from Northamptonshire for mixing with the native material, the combination working well, although scarcely to the extent the producers from the former district think it capable. In Coal there is little alteration to be noted, more particularly in the business doing to the metropolis, which is still languid, and without any prospect of improvement. The Midland Railway, however, is taking a fair tonnage on its direct route, and also to the ironworks in the neighbourhood of Wellingborough. In the southern part of the county matters continue to gradually settle down to their former state, and, although trade is by no means active, and the custom lost during the dispute is slowly being recovered, coke continues in fair request, a good deal being exported in addition to home consumption.

The Sheffield Trades show little or no improvement, the branches doing the most being those connected with the manufacture of railway material. The Rotherham district is also without alteration, there being no great activity at the foundries. Nearer to Barnsley, however, there appears to be plenty of work for the men in nearly every department, rails, sheets, plates, hoops, &c., being in very good demand, so that those important centres have once more assumed that business-like appearance which, until within a comparatively recent period, characterised the works of the Messrs. Dawes. There are some very large orders in hand for cast-iron tubbing for collieries, one order alone being to the extent, it is said, of 1500 tons. The cold-blast furnace at Worsborough appears not likely to be put in blast by the present owners, although there are some thousands of tons of stone on the premises. On the Trent business continues in the same healthy state which has been the rule there for a very long time past, and to which district a considerable quantity of coal and coke continues to be sent from South Yorkshire almost daily.

The Coal Trade during the week has rather improved, owing to the dispute in Lancashire, in a great measure. The contracts of the Wigan Coal Company, as well as of other firms whose men are out, requiring to be kept up, wagons belonging to them are to be seen in various parts of the district. To London there has been very little increase in the business doing, whilst no information has been vouchsafed as to whether the Great Northern Railway Company propose to reduce their traffic rate, agreable to the memorial of the colliery proprietors on the subject. To Grimsby a moderate trade is being done in steam coal, but the demand for Hull is comparatively quiet for the season. On Monday the delegates of the Miners' Association agreed to accept the 5 per cent. reduction; this, however, was not effected without much trouble, the great body of the men being opposed to it. It was only, however, after a great deal of pressure had been brought to bear, and the state of affairs plainly demonstrated, showing the folly of refusing so small a reduction, when most others had been obliged to acquiesce in a much larger one, owing to the general depression in trade, that any impression was made. As it is, the leading men of the association are spoken of in no measured terms by the majority of the colliers, who strongly condemn their policy of conciliation. The firm stand, however, which was taken by the executive plainly shows that they are determined not to be obstructives, and that they have studied and know the interests of the working colliers better than they do themselves.

During the week active operations have been carried on at the Oaks Colliery, for the purpose of clearing the workings and recovering the bodies. On Monday morning the leg of a boy was found on the top pass-by of the north level, and at night the remainder of the body was brought to light. Identification, however, was impossible, but the remains were believed to be those of a boy named Fletcher, a "nipper," by whose friends it was taken possession of for burial. It is likely, however, that the progress for some time will be slow, seeing that there is a considerable accumulation of water in the deep workings. To show what force some of the explosions had, it may be stated that a large iron air-receiver, fixed some years since at the bottom of the back travelling road, on the north level, in connection with a coal-cutting machine, has been driven out some distance, but to what length has not been ascertained. The work at the new shaft at Ardsley has been resumed, and, the water having been pumped, sinking has been recommenced.

Mr. James Green, of the Over Darwin Gas Company, has been appointed manager of the Bahia Gas Company's works, at Bahia.

MANUFACTURE OF SODA AND POTASH.—To convert the chlorides of sodium or of potassium into silicates and carbonates, and caustic soda or potash, as the case may be, and to produce muriatic acid during the process, Mr. A. G. HUNTER, of Flint, North Wales, proposes to volatilise the chloride and cause it to act upon highly heated silica in the presence of steam, whereby a silicate and muriatic acid are produced. The muriatic acid is condensed and utilised for any of the purposes to which it is usually applied, and the silicate is made soluble in water by fusing or boiling it with carbonate of soda or caustic soda, or with carbonate of potash or caustic potash, and the soluble silicate of soda or of potash thereby produced is dissolved in water and converted into the corresponding carbonate by treatment with carbonic acid, or into the corresponding caustic alkali, by treatment with caustic lime, baryta, or magnesia. To expose the silica to the action of the alkaline chloride vapor, he uses a stationary reverberatory furnace on the hearth of which, nearest the fire, is placed the chloride to be treated, and beyond it is placed the silica or silicious mineral to be acted on, steam being admitted to the furnace at the fire-place, so that flame or heated steam, and chloride vapor all pass together over and among the silicious mineral, thence through a condenser for the resulting muriatic acid, and thence to a chimney. The fused silicate of soda or of potash is allowed to flow out through an aperture in the furnace provided for this purpose. A vertical furnace, similar in construction to an iron founder's cupola for melting iron, or to an iron smelter's furnace for making pig-iron; the fuel, chloride to be treated, and silicious mineral being supplied from the top of the furnace, air and steam being admitted by tuyeres near the bottom of the furnace, the fused silicate flowing out at a suitable tap-hole near the bottom of the furnace, and the muriatic acid conducted from the furnace to a condenser. In employing this kind of furnace, the muriatic acid may be led off either from a hood covering the top, or from an opening in the side of the furnace. In the latter case, the furnace top should be closed, either by a movable bell-shaped cover, or by enough depth of the materials to be furnaced above the muriatic acid outlet-flue, as to prevent the escape of vapors, as is ordinarily practised by iron smelters who utilise the waste heat from their blast-furnaces for steam boilers or air superheaters. A stationary or revolving horizontal reverberatory furnace, or a vertical cupola furnace, in which the chloride to be treated is volatilised, its vapor mixed with steam and the mixed gases: the furnace flame, chloride vapor, and steam passed into a tower lined with fire-brick, and filled with the silicious mineral to be acted on, the resulting silicate flowing down and out at the bottom of the tower, and the muriatic acid led off from the top of the tower to a condenser. It is advantageous to cause the melted silicate produced in any of these forms of furnace to flow directly into another furnace, to be fused with its corresponding caustic or carbonated alkali, or to flow directly into a solution of its corresponding caustic or carbonated alkali, to be by either of these modes converted into a soluble silicate of the alkali under treatment. It is advantageous to use, (when they can be cheaply and readily obtained) silicious minerals containing silicate of the alkali, whose chloride is to be treated, such as felspar or granite in the case of chloride of potassium. The proportions of materials are readily determined by practical chemists, from their chemical equivalents, and from the composition of the materials from time to time treated, care being taken at all times to present sufficient silica to the chloride vapor, and sufficient caustic or carbonated alkali to render the resulting silicate soluble in water. The silica or silica of lime, baryta, or magnesia precipitated from the soluble alkaline silicate is useful for glass makers and potteries. The soluble alkaline silicate may be decomposed by injecting carbonic acid into an aqueous solution of the silicate till the silica is precipitated, and the solution of carbonated alkali then run off from the silica and boiled to dryness, or the solution of alkaline silicate may be decomposed by caustic lime, baryta, or magnesia, the silicate of lime, baryta, or magnesia allowed to settle, and the solution of caustic alkali run off and evaporated till sufficiently concentrated to solidify when allowed to cool.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending April 26 amounted to 10,395*l.* 4s. 4d.

TO THE PROPRIETORS OF FIRE BRICK, STONEWARE PIPE, AND TILE WORKS; ALSO, OF ARTIFICIAL MANURE, PATENT FUEL AND SUGAR WORKS, &c., &c.

CARR'S PATENT DISINTEGRATOR,

For REDUCING to a FINE GRANULAR POWDER various UNFIBROUS MATERIALS (whether HARD or SOFT) at the rate of from TEN to THIRTY TONS AN HOUR, according to the size and strength of the one used, and the amount of power available to drive it.

This unique and efficient mill, unparalleled for novelty, wholesale execution, and dispatch, is rapidly superseding throughout the United Kingdom and abroad all other pulverising machines at the above-named and other works, at an immense improvement to their manufacture in quality and quantity, and at a saving in steam-power and labour, in some individual cases amounting to several hundreds of pounds a-year.

An illustrated pamplet, fully describing the disintegrator, with woodcuts and prices (which range from £30 to £140), together with the names and addresses of some two hundred of its purchasers (some of whom have taken two, three, or even four of them), will be forwarded at any time, free of charge, on application to the patentee, as below, who will also send, by sample post where specially required, samples of powdered materials in the precise state as they were pulverised by various disintegrators, consisting of fire-clays, ganister, shale, heavy burnt stoneware, coal, pitch, &c., and likewise the names of some of the purchasers who have kindly consented to show theirs in operation to *bona fide* enquirers.

THOMAS CARR, PATENTEE, MONTPELIER, BRISTOL.

THE HUMBOLDT SILVER MINING COMPANY,
NEVADA, UNITED STATES OF AMERICA
(LIMITED).

CAPITAL—£60,000, in 12,000 shares of £5 each.

PAYMENTS—£1 on application, £2 on allotment, £2 on not less than two months' notice, as and when required, making £5 per share, and leaving NO FURTHER LIABILITY.

SHARES, in TWO SERIES.—FIRST SERIES: 600 paid-up shares to be delivered to the proprietors in purchase of the mines, and the rights in perpetuity belonging to them.—SECOND SERIES: 6000 shares to be subscribed by the public, and the sum of £30,000 paid on them to constitute the working capital of the company. On the First Series of Shares no Dividends to be due until the holders of the Second Series have received £30,000, after which both series will share profits in equal proportions.

BANKERS.
THE LONDON AND WESTMINSTER BANK, Lothbury, E.C.
BROKER.
JOHN INCHBALD, Esq., 2, Copthall-court, Throgmorton-street, E.C.
TEMPORARY OFFICES.
2, AUSTINFRIARS, OLD BROAD STREET, E.C.

This company has been formed for purchasing and working the Honey Lake Silver Mines in Nevada, selected on account of their advanced development and great ascertained value, requiring reduction-works only—which it is the object of this company to supply—to ensure immediate dividends. They are situate in the richest silver mining district in the world, and in their immediate neighbourhood are the following mines paying dividends of extraordinary amount:—

NEVADA SILVER MINES.

Compiled from the Report of the Hon. HUGH MCCULLOCH, Secretary of the Treasury, to the United States Congress.

Name of mine.	Subscribed capital.	Dividends up to Jan. 1, 1868.
Gould and Curry	£50,000	..... £850,400 in 5 years.
Savage	37,600	..... 552,000 in 4¾ ,,
Hale and Norcross	66,000	..... 158,000 in 2 ,,
Imperial	9,936	..... 114,200 in 2 ,,
Yellow Jacket.....	96,000	..... 426,000 in 4 ,,
Chollar-Potosi	124,040	..... 84,000 in 1 ,,
Kentuck	(Loan returned)	..... 135,000 in 2¼ ,,
Crown Point	34,800	..... 99,600 in 2 ,,
Empire	(Loan returned)	..... 61,600 in 4 ,,
Total	£418,376	..... £2,477,800

Full prospectuses, with names of the directors, &c., forms of application, and information, may be obtained of the broker, or of Mr. S. SLEIGH, at the temporary offices of the company, 2, Austinfriars, Old Broad-street, E.C.

HUNT'S PATENT ORE-SEPARATOR, AND GOLD-WASHING MACHINE.

THIS MACHINE, with the latest improvements, will be found WELL WORTHY of the NOTICE of ALL CONNECTED with MINING MATTERS, both as to its effectual working and cheapness, the licence from the 1st of December being considerably reduced.

Testimonials of the highest character, and all other information, can be obtained from Mr. JOHN HUNT, Porthleven, Helston, Cornwall; or of the manufacturers, Messrs. HARVEY and Co., Hayle, Cornwall.

N.B.—A Working Model of the Machine can be seen at the South Kensington Museum for Patents; and also at Messrs. HARVEY and Co.'s Foundry Wharf, Nine Elms, Vauxhall, S.

GREEN SLATES.

GREEN SLATES OF ANY SIZE, and of the CHOICEST COLOUR and QUALITY, can now be OBTAINED from the DOROTHEA WEST SLATE COMPANY (LIMITED), CARNARVON.

The "CHARING CROSS HOTEL," "STAR AND GARTER HOTEL" (Richmond), "LONDON-BRIDGE HOTEL," and many other public buildings, are covered with these elegant slates.

Orders will be executed in regular succession.

Apply to Mr. THOMAS HARVEY, General Manager, 9, Segontium-terrace, Carnarvon, or 33, King-street, Cheapside, London.

NICHOLLS, MATHEWS, AND CO., ENGINEERS
BEDFORD IRONWORKS, TAVISTOCK.

MANUFACTURERS of STEAM ENGINES of EVERY DESCRIPTION, made on the BEST and NEWEST PRINCIPLES. We beg more especially to call the attention of the public to the MANUFACTURE of our BOILERS, which have been tested by most of our leading engineers. PUMP WORK CASTINGS of EVERY DESCRIPTION, both of brass and iron. HAMMERED IRON and HEAVY SHAFTS of ANY SIZE. CHAINS made of the best iron, and warranted. MINERS' TOOLS and RAILWAY WORK of EVERY DESCRIPTION.

ALL ORDERS FOR ABROAD RECEIVE their BEST ATTENTION. NICHOLLS, MATHEWS, and Co. have had 20 years' experience in supplying machinery to foreign mines, and selecting experienced workmen to erect the same, where required.

Messrs. NICHOLLS, MATHEWS, and Co. have always a LARGE STOCK of SECOND-HAND MINE MATERIALS in stock, and at moderate prices.

WILLIAMS'S PERRAN FOUNDRY COMPANY,
PERRANARWORTHAL, CORNWALL.

MANUFACTURERS of STEAM PUMPING and EVERY OTHER KIND of ENGINES, together with BOILERS, PUMP CASTINGS, and MINING TOOLS of every description, of the very best quality. Estimates given for the supply of any amount of machinery.

London Agent.—Mr. EDWARD COOKE, 76, Old Broad-street, London, E.C.

RAILWAY CARRIAGE COMPANY (LIMITED)
ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.

MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, and EVERY DESCRIPTION of IRONWORK.

Passenger carriages and wagons built, either for cash or for payment over a period of years.

RAILWAY WAGONS FOR HIRE.

CHIEF OFFICES,—OLDBURY WORKS, NEAR BIRMINGHAM.
LONDON OFFICES,—6, STOREY'S GATE, GREAT GEORGE STREET, WESTMINSTER.

THE BIRMINGHAM WAGON COMPANY (LIMITED)

MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for HIRE and SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.

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(LIMITED),

MANUFACTURERS of RAILWAY CARRIAGE, WAGON, and CONTRACTORS' WHEELS and AXLES, and other IRONWORK used in the CONSTRUCTION of RAILWAY ROLLING STOCK.

OFFICES AND WORKS,
HEATH STREET SOUTH, SPRING HILL, BIRMINGHAM.
LONDON OFFICE,—118, CANNON STREET, E.C.

NICKEL AND COBALT REFINING, AND GERMAN SILVER WORKS, 16, OOZELL STREET NORTH, BIRMINGHAM.

STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—

REFINED METALLIC NICKEL.
REFINED METALLIC BISMUTH.
OXIDE OF COBALT.
GERMAN SILVER—IN INGOTS, SHEET, WIRE, &c.
NICKEL AND COBALT ORES PURCHASED.

GOLDENHILL, COBALT, NICKEL, COLOUR, BORAX AND CHEMICAL WORKS,
NEAR STOKE-UPON-TRENT, STAFFORDSHIRE.

JOHN HENSHALL WILLIAMSON, MANUFACTURER AND REFINER, Purchaser of Borate of Lime and Tincal.

Teacher of Practical Mining in the late Mining School of Cornwall, and Principal of the Engineering Academy, 36, Upper Parliament-street, Liverpool.

ANALYSES, ASSAYS, AND CHEMICAL INVESTIGATIONS, OF ALL DESCRIPTIONS, ARE UNDERTAKEN BY A. NORMAN TATE, F.A.S.L., &c.,

ANALYTICAL and CONSULTING CHEMIST, and CHEMICAL ENGINEER (Author of "Petroleum and Its Products," "The Manufacture of Caustic Soda," and other Chemical Memoirs).

15, NEWSTEAD ROAD, SMITHDOWN ROAD, LIVERPOOL.

Mr. TATE, who has had many years practical experience in the erection and management of extensive chemical manufactories, and oil distilleries and refineries, also offers his services to those who may require—

PLANS, ESTIMATES, &c., for CHEMICAL WORKS, OIL DISTILLERIES and REFINERIES, and other MANUFACTORIES in which CHEMICAL PROCESSES are CONDUCTED.

The SUPERINTENDENCE of the ERECTION of WORKS or of MANUFACTURING PROCESSES.

The VALUATION of WORKS.

The EXAMINATION of PATENTS, NEW PROCESSES or APPARATUS connected with CHEMICAL MANUFACTURES.

ASSAY OFFICE AND LABORATORY,
No. 2, CROWN CHAMBERS, CROWN COURT, THREADNEEDLE STREET,
CONDUCTED BY W. T. RICKARD, F.C.S., &c.
(Late MITCHELL and RICKARD).

Assays and analyses of every description of mineral and other substances manures, &c.

Gentlemen going abroad for mining purposes instructed in assaying, and the most improved methods of reducing gold, silver, and other metals.

MINING PROPERTIES INSPECTED AND REPORTED ON.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the SOUTH LOVELL MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 22d day of April instant, presented to the Vice-Warden of the Stannaries by Michael Henry Williams, of Tredrea, in the county of Cornwall, carrying on business under the style or name of "The Gweek Company," at Gweek, within the Stannaries of Cornwall, a contributory and also a creditor of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, on Wednesday, the 13th day of May next, at Twelve o'clock at noon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, or his solicitor, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioner, or his solicitor, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 9th day of May next, and notice thereof must at the same time be given to the petitioner or his solicitor.

JOSEPH ROBERTS, Truro, Cornwall.
Dated Truro, April 27, 1868. (Petitioner's Solicitor).

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the TRUMPET UNITED MINING COMPANY.—By an Order made by His Honour the Vice-Warden of the Stannaries in the above matter, dated the 22d day of April inst., on the petition of William Shilson and William Henry Lanyon, carrying on business at Kennall Vale, in the county of Cornwall, under the style or name of "The Kennall Gunpowder Mill Company," creditors of the said company, IT WAS ORDERED that the said TRUMPET UNITED MINING COMPANY should be WOUND-UP by this Court under the provisions of the Companies Act, 1862.

JOSEPH ROBERTS, Truro.
Dated the 23d day of April, 1868. (Solicitor for the Petitioners).

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the PENHALE AND LOMAX CONSOLIDATED SILVER-LEAD MINING COMPANY (LIMITED).—ALL CREDITORS or CLAIMANTS of the ABOVE COMPANY, who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN AND PROVE THEIR SEVERAL DEBTS OR CLAIMS at the Registrar's Office, Truro, on Monday, the 11th day of May next, at Eleven o'clock in the forenoon, or in default thereof they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such proof. And for the purpose of such proof they are either to attend in person or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits of their several debts or claims to the Registrar of the Court, at Truro, such affidavits being sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the Superior Courts lawfully authorised to take and receive affidavits and affirmations.

WM. MICHELL, Registrar of the above-named Court, Truro, Cornwall.
Dated Registrar's Office, Truro, April 30, 1868.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

PURSUANT to a Decree made in the Cause of Harvey and Others v. Lean, the Creditors in respect of EAST GREAT WORK MINE, in the parish of Breage, within the said Stannaries, are REQUIRED, on or before Tuesday, the 12th day of May next, TO COME IN and PROVE THEIR DEBTS before the Registrar of the said Court, in Truro, or in default they will be peremptorily EXCLUDED the BENEFIT of the said DECREE.

Dated Registrar's Office, Truro, April 30, 1868.

In Chancery.

BROOKS v. JONES.

FREEHOLD MINERAL PROPERTY, WITH IRONWORKS, IN THE COUNTY OF MONMOUTH.—FOR INVESTMENT.

MESSRS. FULLER, HORSEY, SON, AND CO. WILL SELL, BY AUCTION, at the Auction Mart, Tokenhouse-yard, London, on Thursday, the 7th day of May, 1868, at One o'clock precisely, in One Lot, by order of the High Court of Chancery, and with concurrence of his Lordship the Master of the Rolls, the Judge to whose Court the said Cause is attached, a very valuable FREEHOLD MINERAL PROPERTY, with BLAST FURNACES, KILNS, FOUNDRIES, ENGINE HOUSES, and BRIDGE HOUSES, known as

THE BLAINA IRONWORKS,

Together with the Blaina Inn; Blaina House and grounds; Three Houses, for manager, surgeon, and cashier; Ninety-seven Houses for workmen; Shops and Schools at Blaina; a Station on the Western Valleys line of the Monmouthshire Railway, about twenty miles from the shipping port of Newport, and in direct communication therewith; the total area being ninety-four acres, with eleven seams of coal of the aggregate thickness of 41 feet, and seven courses of rich ironstone.

Also, the LEASEHOLD INTEREST in TWO MINERAL PROPERTIES adjoining, known as TYR-AP-GETHING, and GWAIN GODWIN, having an area of 47A. 1R. 22P., let upon lease, together with MINERAL PROPERTIES known as CRAYCROFT and HENWAIN, which occupy an area of 84A. 3R. 34P., for a term which will expire on the 25th March, 1875, with power for the lessees to renew for a further term of 20 years, on giving two years previous notice, subject to a surface rent of £650 per annum, and to certain royalties. Minimum royalty, £2000 per annum. Lessees to pay rates and taxes, to repair, to have at least one furnace in blast, and other covenants. From a survey made by Mr. Hedley, the eminent mining engineer, in December, 1865, he reports "that there are sufficient unworked minerals to secure the minimum royalties in perpetuity, and that the existing shafts are sufficient for working out the whole of the minerals." This being so, and the quality of the minerals having been thoroughly ascertained and approved, this property may be recommended as a sound property for the investment of capital.

To be viewed till the sale by special order, which may be obtained of Messrs. J. and W. NORRIS and WOOD, solicitors, Manchester; or of the Auctioneers, 11, Billiter-square, London.

Printed particulars, with ground plans and sections of the minerals, may be had of the following solicitors:—Messrs. J. and W. NORRIS and WOOD, Manchester, the solicitors of the plaintiff; of Messrs. NORRIS and ALLEN, No. 20, Bedford-row, London; of Mr. J. NEEDHAM, No. 1, New-inn, Strand, London; of Messrs. CLARKE, WOODCOCK, and RYLAND, Lincoln's Inn-fields, London; of Messrs. MILLER and SMITH, No. 48, Watling-street, London; of Messrs. THOS. WHITE and SONS, No. 11, Bedford-row, aforesaid; of Messrs. CHILTON and Co., No. 25, Chancery-lane, London; of Messrs. BELL, BRODERICK, and Co., Bow Churchyard, London; of Mr. W. H. DINGNAN, No. 57, Chancery-lane, aforesaid; of Mr. WILLIAM THORNE, Messrs. CORSER and FOWLER, THOMAS BOLTON, and Messrs. H. and J. E. UNDERHILLS, Wolverhampton; of Messrs. DUIGNAN, LEWIS, and LEWIS, Walsall; of Mr. R. W. HAND, solicitor, Stafford; at the principal inns at Newport, Cardiff, Swansea, Gloucester, and Bristol; at the *Midland Counties Herald* office, Birmingham; at the Auction Mart and Estate Exchange, London; and of Messrs. FULLER, HORSEY, SON, and Co., No. 11, Billiter-square, London, E.C.

PERIODICAL SALES
(Established 1843)

Of ABSOLUTE and CONTINGENT REVERSIONS to FUNDED and OTHER PROPERTY, LIFE INTERESTS, ANNUITIES, POLICIES of ASSURANCE, ADVOWSONS, NEXT PRESENTATIONS, MANORIAL RIGHTS, RENT CHARGES, POST OBIT BONDS, DEBENTURES, SHARES in DOCKS, CANALS, MINES, RAILWAYS, INSURANCE COMPANIES, and other PUBLIC UNDERTAKINGS.

MR. MARSH begs to announce that his PERIODICAL SALES (established 1843) for the DISPOSAL of EVERY DESCRIPTION of the above-mentioned PROPERTY, take place on

THE FIRST THURSDAY IN EVERY MONTH.

Auction, Land and Estate Agency Offices, 54, Cannon-street, London, E.C.

BARNSLEY.

VALUABLE COLLIERIES FOR SALE.
PRELIMINARY ANNOUNCEMENT.

TO BE SOLD, BY PUBLIC AUCTION, towards the end of the month of July next, unless previously disposed of by private contract, when due notice will be given—

LOT 1.—All that VALUABLE COLLIERY, with the ENGINES and PLANT, called the

GAWBER HALL COLLIERY, otherwise WILLOW BANK,

and situate on the Barnsley Branch of the Lancashire and Yorkshire Railway and the Barnsley Canal, and distant from the town of Barnsley one mile.

LOT 2.—All that other VALUABLE COLLIERY, with the ENGINES and PLANT, situate at Mappiewell, near Barnsley, and upon the said Branch Railway, and called the

NORTH GAWBER COLLIERY.

The well-known Barnsley thick bed of coal is being worked by the above-mentioned pits, which are in first-rate working condition.

Further detailed particulars of the sale will be issued hereafter, and all information may be obtained upon application being made to Mr. G. ARMSTRONG, solicitor, Newcastle-upon-Tyne; or to Mr. W. H. PEACOCK, solicitor, Barnsley.

Barnsley, 27th April, 1868.

ISLIP IRON ORE WORKS.

TO BE LET, the IRON ORE WORKS at ISLIP, near THRAPSTON, in NORTHAMPTONSHIRE, immediately adjoining the Kettering branch of the Midland Railway, and with which they are in direct connection. The stone has been extensively worked by the owner, and is of good quality.

Apply to Mr. M. BIGGE, Islip, Thrapston; or to J. KIMPTON, Esq., Corn Market, Derby.

RAILWAY WAGON WORKS, BARNSLEY

MESSRS. G. W. AND T. CRAIK
ARE PREPARED TO
SUPPLY COAL AND COKE WAGONS
OF EVERY DESCRIPTION,
Either for cash, or by preferred payments through wagon-leasing companies.

WAGONS PROMPTLY REPAIRED.

LOCOMOTIVE TANK ENGINES FOR MINES AND COLLIERIES.

HENRY HUGHES AND CO.,
FALCON WORKS, LOUGHBOROUGH,
Have ALWAYS in PROGRESS, and can SUPPLY at short notice,
TANK ENGINES
To suit any gauge of railway and gradients from 1 in 16.

THE BEVERLEY IRON AND WAGON COMPANY
(LIMITED),

MANUFACTURERS OF RAILWAY WAGONS, WHEELS AXLES, LORRYS, CARTS, WOOD WHEELS, &c.,
IRONWORKS, BEVERLEY, YORKSHIRE.

THE RAILWAY SPRING COMPANY (LIMITED),
DIAL WORKS, WEST BROMWICH,
MANUFACTURERS OF
RAILWAY, WAGON, AND CARRIAGE SPRINGS.
Orders executed with the utmost dispatch, of first-rate quality, and on moderate terms.

RAILWAY WAGONS.

TO BE LET, on REDEMPTION HIRE, about ONE HUNDRED narrow gauge 7-ton COAL WAGONS.

Apply, "SECRETARY,"
SOUTH OF ENGLAND WAGON COMPANY (LIMITED),
37, GREAT GEORGE STREET, WESTMINSTER, S.W.

BAGILLT OIL COMPANY (LIMITED),
FLINT.
MANUFACTURERS OF BLACK GREASE
FOR COLLIERY WIRE ROPES, TRAMS, WAGONS, &c., £5 PER TON
TORCH AND LAMP OIL, 1s. PER GALLON (Casks free).
LUBRICATING OIL, 1s. PER GALLON (Casks free).

COMPRESSED FUEL
(BIRD'S PROCESS)

CAN BE MADE EVEN BY HAND-PRESS LABOUR AT THE PIT'S MOUTH, or at any WHARF or YARD where COAL or COKE DUST is obtainable.

The loss of dust by frequent transport, waste of "smalls" from falling unconsumed between the furnace-bars, or being driven up the chimney by the draught, and consequent choking up of flues, is diminished by this process.

The foreign matter in admixture being but one-half per cent. to the ton, and of a nature to ensure perfect combustion, the coal or coke treated remains unspoilt.

Drying is very rapid, and no artificial system needed.

Gluten, cement, and all ingredients needed for mixing can be supplied in bags as required. License fee, £10; royalty, 3d. per ton.

Apply to— JAMES BIRD,
No. 2, LAURENCE POUNTNEY HILL, CITY, LONDON.

COAL CUTTING MACHINERY.—

The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are NOW READY to MAKE CONTRACTS for the CONSTRUCTION and USE of their MACHINES.

The results of twelve months' experience in the working of these machines, by the West Ardsley Company, have proved most satisfactory, their use being found to CHEAPEN the COST and IMPROVE the average SIZE of the COAL, to LIGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION of the MINE.

All communications to be made to Messrs. FIRTH, DONISTHORPE, and BOWER, No. 8, Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any such INFRINGEMENT is MADE.

SAFETY FUSE.—Messrs. WILLIAM BRUNTON AND CO., PENHALLICK, POOL, near CAMBORNE, CORNWALL, and BRYMBO, near WREXHAM, MANUFACTURERS OF FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe.

For the convenience of their customers and others in the North, W. BRUNTON and Co. have recently erected a branch manufactory at Brymbo, near Wrexham, where, as at Cornwall, they are at all times PREPARED to EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE, upon warrant that it will prove equal to, if not better than, any to be procured elsewhere.

ESTABLISHED 1847.

H. STATHAM AND COMPANY,
MANUFACTURERS OF EVERY DESCRIPTION OF
INDIA RUBBER AND GUTTA PERCHA VALVES, &c.,
WASHERS, BUFFERS, HOSE PIPES, TUBING,
STEAM PACKING, BELTING,
BLASTING TUBE FOR NITRO-GLYCERINE POWDER.
AIR AND WATER PROOF ARTICLES.

To proprietors of mines, quarries, mills, railway and steamboat companies, and all large consumers, most advantageous terms are offered.

ANY ARTICLE MADE TO SKETCH OR PATTERN.
PRICE LISTS AND SAMPLES ON APPLICATION,
11, CORPORATION STREET, MANCHESTER;
IRWELL WORKS, SALFORD.

SMITH AND FORREST,
ROSIN DISTILLERS, GREASE AND VARNISH MANUFACTURERS,
HOLT TOWN OIL WORKS, MANCHESTER,
MANUFACTURERS OF VEGETABLE OILS, &c.

ANTI-FRICTION GREASE, 10s. to 14s. per cwt.
Wire rope ditto, free from acid, 15s. per cwt. Liquid ditto (between thick and thin), for trams, &c., 8s. to 12s. per cwt.
SKIP, HUTCH, CORVE, and WAGON OILS, from 8s. to 12s. per cwt.
TORCH OIL, 1s. to 1s. 6d. per gallon.
COPPER-SPOUTED QUART LAMPS, 4s.; TORCH WICK for ditto, 6d. per lb.
PATENT ANTI-CORROSIVE BLACK VARNISH,
"Paint Substitute for Wood or Iron," ready for use, 1s. to 2s. 6d. per gallon.
We shall be glad to furnish a detailed price-list on application.
Orders by post receive prompt attention.

WILTON'S MATHEMATICAL INSTRUMENT ESTABLISHMENT REMOVED from St. Day to A. JEFFERY'S, CAMBORNE.

W. H. WILTON begs to thank his friends for their very liberal support for so many years, and informs them that he has now declined business in England in favour solely of Mr. A. JEFFERY, MATHEMATICAL INSTRUMENT MAKER, CAMBORNE, whom he considers (having been an assistant to his father for several years) is in every way capable of creditably maintaining the good name universally awarded to Wilton's instruments.

A. JEFFERY

Respectfully begs to inform Mine Managers, Surveyors, Engineers, &c., that having purchased Mr. Wilton's business, and the very valuable acquisitions and appliances belonging thereto, he has enlarged his Mathematical Instrument Manufactory, and is prepared to supply THEODOLITES, DIALS, POCKET DIALS, LEVELS, TRAVERSING and PLAIN PROTRACTORS, CASES OF DRAWING INSTRUMENTS, MEASURING CHAINS AND TAPES, ASSAYERS' SCALES AND WEIGHTS, ENGINE COUNTERS, and, in short, every description of Instruments used in SURVEYING, MEASURING, MAPPING, &c.

Repairing in all its branches promptly attended to.

CREASE'S NEW AND IMPROVED PNEUMATIC TUNNELLING ENGINE.

THE PROPRIETORS of this INVENTION, in order to bring its CAPABILITIES more prominently before the PUBLIC, are OPEN to TAKE CONTRACTS for DRIVING LEVELS.

Preference will be given to ADIT LEVELS and those places where ROTATORY MACHINERY is in use, and can be applied to driving the AIR COMPRESSOR.

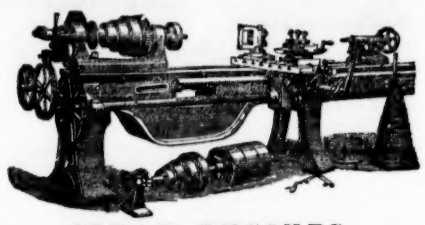
Address—E. S. CREASE, 7, Hoe-street, Plymouth.

BICKFORD'S PATENT SAFETY FUSE

Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXPOSITION" held in Paris, in 1855; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; and at the "UNIVERSAL EXPOSITION," in Paris, 1867.

BICKFORD, SMITH, AND CO. of TUCKINGMILL, CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—

EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.



STEAM ENGINES,

ENGINEERS' TOOLS, BUILDERS' CONTRACTORS' COLLIERY PLANT, AND MACHINERY,

Of every description, new and secondhand,

FOR SALE OR HIRE,

At greatly reduced prices. Best materials, workmanship, and finish, warranted

WHEATLEY KIRK,

ENGINEERING, MILL VALUER, AUCTIONEER, &c.,

8, ESSEX STREET, MANCHESTER.

Monthly Circulars forwarded free of charge.

DYNAMITE, OR NOBEL'S PATENT SAFETY BLASTING POWDER,

May now be had from

MESSRS. WEBB AND CO., CARNARVON,

Sole consignees from the patentee.

This powerful BLASTING AGENT will not explode from a spark, or concussion alone, but requires the combined effect of both, and is fired by a strong percussion cap and ordinary fuse. In a compressed state it may be fired in damp holes, or under water.

Force, SEVEN TIMES that of the BEST GUNPOWDER.

It will shiver to pieces cast or wrought-iron, or the toughest teak timber. No tamping is required. It is by far the safest explosive for blasting purposes ever discovered.

NITRO-GLYCERINE, OR NOBEL'S PATENT BLASTING OIL.

THE EXPLOSIVE FORCE of this BLASTING OIL is TEN TIMES that of GUNPOWDER, and the ECONOMY and SAVING in TIME, LABOUR, and COST in removing granite and hard rock, in sinking shafts, driving tunnels, and opening forward in close ends is immense.

It will not explode from a spark or fire, but from concussion alone, and is consequently much less dangerous than gunpowder or gun-cotton.

Being heavier than water it sinks to the bottom of a wet hole, no other tamping than water being required.

One charge of this blasting oil, which is now being used with wonderful effect in all the largest slate quarries in North Wales, will displace as much slate rock as four or five charges of gunpowder; and its great force, acting on a large quantity of good slate rock, shakes and displaces it at the natural joints, or cracks, without damaging the slabs nearly so much as the more numerous blasts from any other blasting material would do.

This invaluable quarrying agent may now be obtained from Messrs. WEBB and Co., Carnarvon, sole consignees from the patentee.

JOHN AND EDWIN WRIGHT,

PATENTEES.

(ESTABLISHED 1770.)

MANUFACTURERS OF EVERY DESCRIPTION OF IMPROVED

PATENT FLAT AND ROUND WIRE ROPES,

From the very best quality of charcoal iron and steel wire.

PATENT FLAT AND ROUND HEMP ROPES.

SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPAULING, OIL SHEETS, BRATTICE CLOTHS, &c.

UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM
CITY OFFICE No. 5. LEADENHALL STREET. LONDON. E.C.

Swan Rope Works.

GARNOCK BIBBY, AND CO., CHAPEL STREET, LIVERPOOL,

MANUFACTURERS of FLAT and ROUND HEMP and IRON and STEEL WIRE ROPES for MINING, RAILWAY, and SHIPPING PURPOSES.

MANILLA ROPE of SUPERIOR QUALITY, FIFTY PER CENT. STRONGER and THIRTY PER CENT. CHEAPER than Russian hemp rope.

WIRE ROPE of FIRST QUALITY WIRE, and the HIGHEST STANDARD of STRENGTH.

THE SCIENTIFIC WONDER.

This INSTRUMENT has a CLEAR MAGNIFYING POWER of THIRTY-TWO THOUSAND TIMES, shows all KINDS of ANIMÆLCULÆ in WATER, CIRCULATION of the BLOOD, &c., &c., ADULTERATION of FOOD, MILK, &c., and is just the MICROSCOPE that every Surgeon, Dentist, Schoolmaster, Student, and Working Man should have. It is pronounced by the press (and all scientific men who have seen it) to be the best, cheapest, and most simple microscope ever invented. It has twenty times the power of the Coddington or Stanhope Microscope, and is twice as good as the celebrated Rae Microscope (which has been awarded so many Prize Medals), as may be inferred from the following letter received from Mr. Rae himself:—

TO MR. MCCULLOCH, PHILOSOPHICAL INSTRUMENT MAKER.

Carlisle, December 12th, 1867.—SIR: Having seen some of your Diamond-Plate Lenses, I write to ask your terms for supplying me with the same per 20 gross, as I consider them superior to mine. RAE AND CO., Opticians, Carlisle.

I beg to inform the public that I have no agents anywhere, and all pretended agents are imposters. The above instrument can only be had from me, in Birmingham. Those at a distance who care for instruction and amusement, can have it safe and free by sample post, with book of full instructions, on receipt of 32 p stage stamps. Samples sent abroad, two stamps extra.

All persons wishing further particulars and testimonials, must send stamped and addressed envelope. ADDRESS—

A. MCCULLOCH, PHILOSOPHICAL INSTRUMENT MAKER,
No. 18, BLUCHER STREET, BIRMINGHAM.

BRITISH, COLONIAL, AND FOREIGN PATENTS,

REGISTRATION OF DESIGNS, COPYRIGHTS, TECHNICAL TRANSLATIONS, DRAWINGS, &c.

MR. MICHAEL HENRY,

Memb. Soc. Arts, Assoc. Soc. Engineers, Author of the "Inventors' Almanac," and the "Defence of the Present Patent Law,"

PATENT REGISTRATION AND COPYRIGHT AGENT AND ADVISER.

Inventors advised in relation to Patents and Inventive and Industrial Matters. Printed information sent free by post. Specifications drawn and revised. Searches conducted. Abstracts, Cases, and Opinions drawn.

Translations of Catalogues, Trade Notices, and Circulars for the approaching Paris Exhibition. Mr. HENRY has had especial experience in technical French, and in French Manufacturing and Commercial Matters.

Offices, 68, Fleet-street, E.C., London, corner of and entrance in Whitefriars street.

CARLISLE BISCUIT COMPANY.

CARLISLE BISCUIT COMPANY.—WHOLESALE AND EXPORT BISCUIT MANUFACTURERS, CARLISLE, & 56, CITY ROAD, LONDON. For twenty years their biscuits have maintained a high reputation. For export they are specially prepared, so as to keep in any climate. To wholesale buyers a liberal discount is allowed. Price lists forwarded on application.

MEAT BISCUITS FOR DOGS.

MEAT BISCUIT FOR DOGS, made by the CARLISLE BISCUIT COMPANY, is undoubtedly the best and cheapest food for dogs that has ever been introduced. It is equally adapted for sporting dogs, yard dogs, or for pets. It requires no cooking, and, without any other food, keeps dogs in the highest condition. Many of the prize-taking dogs at the last Birmingham show were fed, from puppies, on this biscuit. Price 20s. per cwt. at Carlisle; or at their depôt, 56, City-road, London, 22s. per cwt. Post-office orders payable to WILLIAM SLATER, Carlisle. Sold by corn chandlers everywhere. Book of testimonials from well-known country gentlemen, sent on application. Agents wanted. WILLIAM SLATER, Managing Director.

HEATON'S PATENT.

THE LANGLEY MILL STEEL & IRONWORKS COMPANY

(LIMITED),

LANGLEY MILL, NEAR NOTTINGHAM,

Are now making Cast-Steel suitable for Tools, Taps, Dies, Chisels, &c., &c., Shear Steel, and Iron of a very superior quality, by their direct process, under the superintendence of the Patentee.

The range of quality which this process secures renders the Steel and Iron suitable for almost every purpose to which these metals can be applied. Also, CAST-STEEL CASTINGS of all kinds from PATTERNS or DRAWINGS.

TO MINING COMPANIES, MECHANICAL ENGINEERS, MERCHANTS, SHIPPING AGENTS, &c.

THE TITANIC STEEL AND IRON COMPANY,

(LIMITED)

MANUFACTURE A VERY SUPERIOR QUALITY OF STEEL FOR

BORERS, ROCK-DRILLING, AND MINING PURPOSES

GENERALLY; ALSO FOR

LATHE TOOLS, TAPS, DIES, DRILLS, PUNCHES, CHISELS, SHEAR BLADES, SNAPS, AND BOILER MAKERS' AND SMITHS' TOOLS.

SOLID CAST-STEEL HAMMERS

CAREFULLY MADE OF BEST CAST-STEEL TO ANY PATTERN.

The Company's STEEL is manufactured according to the processes and under the supervision of

MR. ROBERT MUSHET.

WORKS AND OFFICES,—

COLEFORD, FOREST OF DEAN, GLOUCESTERSHIRE.

ORMEROD, GRIERSON, & CO.,

ST. GEORGE'S IRONWORKS, HULME, MANCHESTER,

Have the largest assortment in the Trade of PATTERNS,

SPUR WHEELS, BEVEL WHEELS, MITRE WHEELS.

ALSO

FLY WHEELS, DRIVING PULLEYS, AND DRUMS

CAN BE SUPPLIED BORED AND TURNED, IF REQUIRED.

CATALOGUES ON APPLICATION.

ALSO, MANUFACTURERS OF BLAST ENGINES, COLLIERY AND ALL OTHER DESCRIPTIONS OF STATIONARY ENGINES AND BOILERS, MILL GEARING, &c.

ARTESIAN BORING.

IMPROVEMENTS IN

TOOLS FOR BORING FOR WATER, COAL, AND MINERALS.

TILLEY'S PATENT.

These consist in DOING AWAY WITH THE MALE SCREW ON BORING RODS, and, by their patented arrangements, DIMINISHING THE RISK OF BREAKAGE, and RENDERING REPAIRS EASY. For prospectuses, apply to—

M. BEALE, 21, GRESHAM STREET, E.C.

Estimates given for obtaining water and boring for minerals.

PARIS EXHIBITION, 1867, GOLD MEDAL.

CLAYTON, SHUTTLEWORTH, AND CO.,

At the Great Triennial Trials of the ROYAL AGRICULTURAL SOCIETY OF ENGLAND, held at Bury St. Edmunds, July, 1867, received the following AWARDS:—

For Single Cylinder Portable Steam Engine,—THE FIRST PRIZE OF £25.
For Double Cylinder Portable Steam Engine,—THE FIRST PRIZE OF £25.
For Horizontal Cylinder Fixed Engine,—THE FIRST PRIZE OF £20.
For Double Blast Finishing Thrashing Machine,—THE PRIZE OF £15.
Also, THE SOCIETY'S SILVER MEDAL for ADJUSTING BLOCKS for Machines.

The duty performed by all C., S., and Co.'s Engines on this occasion considerably exceeded that of any others. C., S., and Co. refer with pleasure to the fact that the duty of their "Commercial" or Single Valve Engine at Chester, so long ago as 1858, was not equalled by any "ordinary" Engine at Bury.

CLAYTON, SHUTTLEWORTH, & CO., LINCOLN;

And 78, LOMBARD STREET, LONDON.

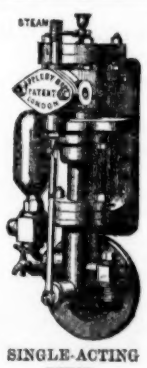
PATENT FLEXIBLE TUBING,

AND BRATTICE CLOTH FOR MINES

MANUFACTURED BY

ELLIS LEVER,

WEST GORTON WORKS, MANCHESTER.



SINGLE-ACTING PUMP.

PARIS EXHIBITION, 1867—AWARDS, } Silver Medal for STEAM CRANES. Bronze Medal for DONKEY FEED PUMPS.

APPLEBY BROTHERS,

EMERSON STREET, SOUTHWARK,

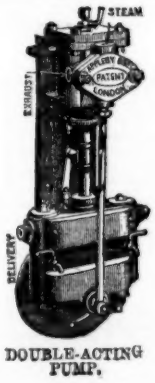
LONDON, S.E.,

Engineers and Patentees of STEAM CRANES, DONKEY PUMPS, &c.

PATENT DONKEY PUMPS.

Nos.	1	2	3	4	5	6	7	8	9
Diam. of ram	1½ in.	2 in.	2½ in.	2½ in.	2¾ in.	3 in.	3¼ in.	3½ in.	4 in.
*Gall. per hour	230	400	680	850	1200	1500	2100	2500	3800
Approx. H.P.	15	25	40	50	80	95	130	150	230
Single-acting price	£10 5s.	£12 10s.	£15	£18	—	—	—	—	—
Double-acting do.	11 10s.	14 0s.	17	20	£24	£28	£33	£38	—
Double-acting pump on base plate				27	32	38	43		£60

* Calculated at 100 strokes per minute.



DOUBLE-ACTING PUMP.

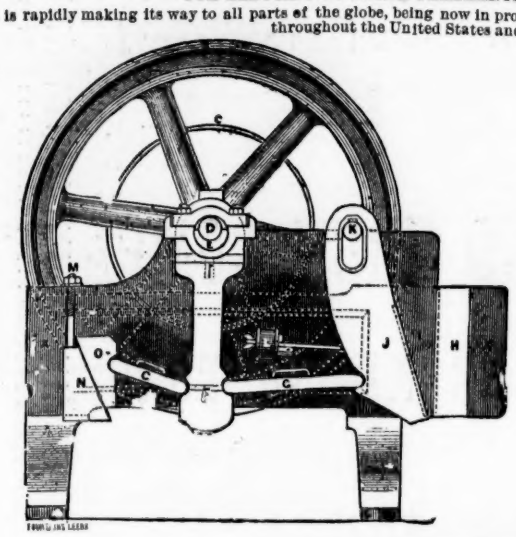
IMMENSE SAVING OF LABOUR.
TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, McADAM ROAD MAKERS, &c., &c.

BLAKE'S PATENT STONE BREAKER,

OR ORE CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—



The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.
For the Parys Mining Company, JAMES WILLIAMS.
H. R. Marsden, Esq.

Ecton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaw s about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.
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CAUTION!

BLAKE'S PATENT STONE BREAKER,

In Chancery.

BLAKE v. ARCHER, NOVEMBER 12, 1867.

His Honour the Vice-Chancellor WOOD having found a VERDICT in FAVOUR of the PLAINTIFFS in the above Cause, establishing the VALIDITY of BLAKE'S PATENT, and made a DECREE for an INJUNCTION to RESTRAIN the DEFENDANTS, Messrs. THOMAS ARCHER and SON, of Dunston Engine-Works, near Gateshead-on-Tyne, from INFRINGING such PATENT, and ordering them to pay to the Plaintiffs the costs of the Suit.

ALL PERSONS are hereby CAUTIONED against MANUFACTURING, SELLING, or USING any STONE BREAKERS similar to BLAKE'S, which have not been manufactured by the Plaintiffs. Application will forthwith be made to the Court of Chancery for INJUNCTIONS AGAINST ALL PERSONS who may be found INFRINGING BLAKE'S PATENT after this notice.

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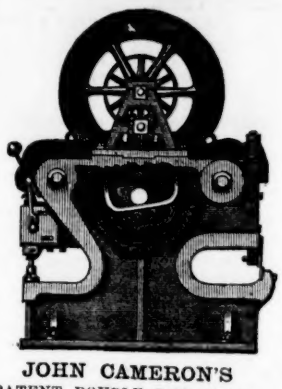

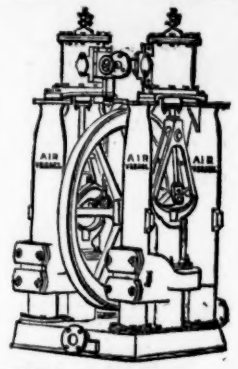

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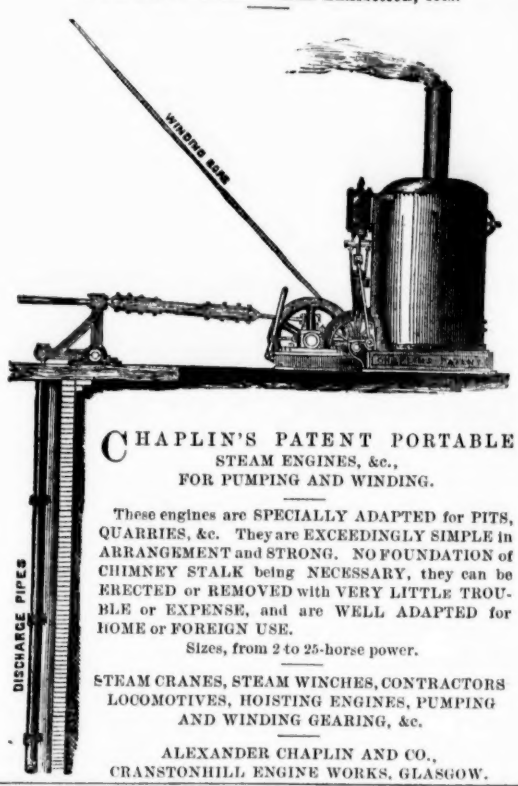

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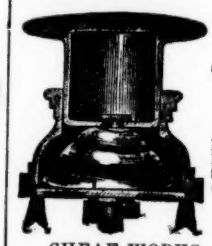

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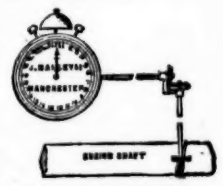

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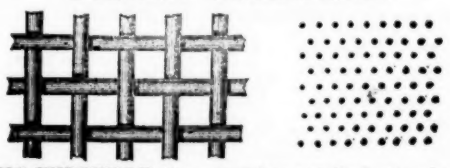

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Contract for British Iron.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.

THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 12th May next, at Two o'clock, they will be READY to TREAT with such persons as may be WILLING to CONTRACT for SUPPLYING and DELIVERING into store at Her Majesty's several Dockyards all such quantities of

BRITISH IRON,

Class D (thin plate or sheet), as may from time to time be ordered under a contract for twelve months certain, and further until the expiration of three months' warning.

The average annual consumption may be ascertained, and a form of the tender, including a schedule of the iron and conditions of the contract, may be obtained on application at this department. No tender will be received after Two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner the words "Tender for British Iron, Class D," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £500 for the due performance of the contract.

By order, ANTONIO BRADY,
Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, 22d April, 1868.

Contract for Coals for Shanghai.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE,

THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland do hereby give notice that on TUESDAY, the 12th May next, at Two o'clock, they will be READY to TREAT with such persons as may be WILLING to CONTRACT for SUPPLYING and DELIVERING into store on shore or on board Her Majesty's steamships and vessels at Shanghai

TWO THOUSAND TONS OF SMOKELESS SOUTH WALES COALS,

fit for the service of Her Majesty's steamships and vessels. One-half of the coals to be shipped by the 30th June, and the remainder by the 31st July next.

A form of the tender and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after Two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Coals for Shanghai," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £25 per cent. on the value for the due performance of the contract.

By order, ANTONIO BRADY,
Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, 24th April, 1868.

Contract for Coals for Malta.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.

THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 19th May next, at Two o'clock, they will be READY to TREAT with such persons as may be WILLING to CONTRACT for SUPPLYING and DELIVERING into Store at Her Majesty's Dockyard at Malta,

TWELVE THOUSAND TONS OF SMOKELESS SOUTH WALES COALS,

Fit for the service of Her Majesty's steamships and vessels.

A form of the tender and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after Two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Coals for Malta," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £25 per cent. on the value for the due performance of the contract.

By order, ANTONIO BRADY,
Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, April 28, 1868.

Contract for Coals for Trincomalee.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.

THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that, on TUESDAY, the 19th of May next, at Two o'clock, they will be READY to TREAT with such persons as may be WILLING to CONTRACT for SUPPLYING and DELIVERING into store at Her Majesty's Naval Yard at Trincomalee,

TWELVE HUNDRED TONS OF SMOKELESS SOUTH WALES COALS,

Fit for the service of Her Majesty's steam-ships and vessels.

The coals are to be shipped by the 30th June, 1868.

A form of the tender and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after Two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Coals for Trincomalee," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £25 per cent, on the value for the due performance of the contract.

By order, ANTONIO BRADY,
Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, April 27, 1868.

Contract for Best British Iron.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL.

NOTICE IS HEREBY GIVEN, that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY on or before Monday, the 11th instant, to RECEIVE PROPOSALS, in writing, sealed up, from such persons as may be willing to SUPPLY—

BEST BRITISH IRON.

And that the conditions of the said contract may be had on application, addressed to the Director-General of Stores, India Office, Westminster, S.W., where the proposals are to be left any time before Two o'clock P.M. of the said 11th day of May, 1868, after which hour no tender will be received.

India Office, May 1, 1868. GERALD C. TALBOT, Director-General.

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200	Botallack, t, c, St. Just	91 5 0	—		488 15 0	5 0 0	May 1866
4000	Brookwood, c, Buckfastleigh	1 11 0	—		0 10 0	0 2 6	April 1868
1000	Bronfloyd, l, Cardigan*	12 0 0	—		9 3 0	0 6 0	Jan. 1868
6400	Cashwell, l, Cumberland*	2 10 0	—		0 1 6	0 1 6	Aug. 1866
916	Cargoll, s-l, Newlyn	15 5 7	22	20 21	14 5 0	0 10 0	Jan. 1868
509	Creegbrawse and Penkevil, t	--	—		2 5 0	1 5 0	April 1868
867	Cwm Erfin, l, Cardiganshire*	7 10 0	—		26 13 0	0 15 0	April 1868
128	Cwmystwith, l, Cardiganshire	60 0 0	—		381 10 0	2 0 0	Dec. 1867
280	Derwent Mines, s-l, Durham	300 0 0	—		174 10 0	5 0 0	June 1867
1024	Devon Gt. Consols, c, Tavistock†	1 0 0	—	440 450	1095 0 0	7 0 0	Mar. 1868
656	Ding Dong, t, Gulval‡	49 14 6	—		0 10 0	0 10 0	Sept. 1867
358	Dolcoath, c, t, Camborne	128 17 6	—		844 10 0	4 0 0	April 1868
6144	East Caradon, c, St. Cleer†	2 14 6	3¾	4⅛ 4⅜	14 11 6	0 2 0	July 1867
300	East Darren, l, Cardiganshire	32 0 0	—		154 10 0	2 0 0	April 1868
128	East Pool, t, c, Pool, Illogan	24 5 0	—		427 10 0	5 0 0	Mar. 1868
1906	East Wheal Lovell, t, Wendron	3 9 0	8¾	8¼ 8¾	3 11 6	0 10 0	Dec. 1867
2800	Foxdale, l, Isle of Man*	25 0 0	—		71 0 0	0 10 0	Sept. 1867
5000	Frank Mills, l, Christow	3 18 6	—		3 5 6	0 5 0	Feb. 1866
3950	Gawton, c, Tavistock	3 10 6	—		0 3 0	0 3 0	Jan. 1868
15000	Great Laxey, l, Isle of Man*	4 0 0	17	16⅛ 17	8 5 0	0 10 0	Mar. 1868
5908	Great Wheal Vor, t, c, Helston†	40 0 0	19	17½ 18½	12 15 6	0 7 6	Mar. 1868
1024	Herodsfoot, l, near Liskeard†	8 10 0	40	38 40	45 0 0	1 10 0	Feb. 1868
6000	Hingston Down, c, Calstock†	5 10 6	—		0 10 0	0 5 0	April 1866
400	Lisburne, l, Cardiganshire	18 15 0	—		501 10 0	3 0 0	Feb. 1868
3000	Maes-y-Safn, l, Flint*	20 0 0	28	26 28	3 15 0	0 15 0	April 1868
9000	Marke Valley, c, Caradon	4 10 6	6¾	6⅝ 6⅞	4 8 6	0 4 0	April 1868
3000	Minera Boundary, l, Wrexham*	1 0 0	—		0 13 0	0 3 0	Mar. 1866
1800	Minera Mining Co. l, Wrexham*	25 0 0	175	165 175	228 13 0	5 0 0	Feb. 1868
20000	Mining Co. of Ireland, c, l, cl.	7 0 0	—		—	0 5 7	Jan. 1867
40000	Mwyndy Iron Ore*†	3 5 0	—		0 8 6	0 2 0	Mar. 1868
200	Parys Mines, c, Anglesey*	50 0 0	—		160 0 0	2 10 0	Mar. 1868
12800	Prince of Wales, t, Calstock	0 12 6	2¾	49s. 51s.	0 4 6	0 1 0	Feb. 1868
6000	Prosper United, t, c, St. Hilary	8 14 0	—		0 5 0	0 5 0	Feb. 1867
1120	Providence, t, Uny Lelant†	10 6 7	28	27 28	84 12 6	0 10 0	Feb. 1868
512	South Caradon, c, St. Cleer†	1 5 0	400	395 405	580 10 0	6 0 0	Mar. 1868
6000	South Darren, l, Cardigan*	3 6 6	—		0 10 0	0 1 6	April 1868
496	So. Wh. Frances, c, Illog.†‡	18 18 9	21	19 21	374 13 6	1 0 0	Mar. 1868
508	Summer Hill, l, Mold	3 13 6	—		2 5 6	0 5 0	Feb. 1868
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	15½	14 15	19 6 0	0 5 0	Mar. 1868
2000	Trumpet Cons., t, Helston	11 10 0	—		12 10 0	0 10 0	Mar. 1868
3000	W. Chiverton, l, Perranzabuloe†	10 0 0	65	64 65	25 7 6	2 0 0	Feb. 1868
5000	West Godolphin, t, c, Breage	0 1 0	—		0 2 0	0 2 0	Dec. 1867
400	W. Wheal Seton, c, Camborne†	47 10 0	210	205 210	494 0 0	5 0 0	April 1868
512	Wheal Basset, c, Illogan†	5 2 6	67	63 65	631 10 0	1 0 0	April 1868
1024	Wheal Friendship, c, Tavistock	20 0 0	—		300 10 0	0 10 0	Nov. 1866
512	Wheal Jane, s-l, Kea	10 10 0	—		—	2 0 0	Jan. 1868
4295	Wheal Kitty, t, St. Agnes	5 4 6	—		3 5 0	0 2 0	Feb. 1868
1024	Wheal Mary Ann, l, Menheniot†	8 0 0	22½	21½ 22½	64 5 0	0 17 6	Mar. 1868
80	Wheal Owles, t, St. Just‡	70 0 0	—		350 13 0	7 10 0	Feb. 1868
396	Wheal Seton, t, c, Camborne	58 10 0	76	75 77½	254 15 0	2 0 0	Feb. 1868
3000	Whitewell Lead, Clitheroe*	0 5 0	—		1 0 0	0 10 0	Dec. 1867
17000	Wicklow, c, l, Wicklow	2 10 0	—		48 16 0	0 6 0	April 1868

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20000	Australian, c, South Australia†‡	7 7 6	—		0 1 0	0 1 0	Aug. 1867
15000	Cape Copper Mining*†	7 0 0	11¾	11¾ 12	3 2 6	0 10 0	Feb. 1868
76162	Don Pedro North del Rey*†‡	0 14 0	2¾	2⅝ 2⅞	0 15 9	0 5 0	Mar. 1868
70000	English and Australian, c‡	2 10 0	⅞	⅝ ⅞	—	0 1 0	Feb. 1868
25000	Fortuna, l, Spain*†	2 0 0	2	2	1 9 4	0 2 0	Mar. 1868
20000	Gen. Mining Assoc., Nova Scotia†	20 0 0	—		23 10 0	0 15 0	June 1867
10000	Gonnesa, l,* [5000 £5 pd., 5000 £4 pd.]		—		10 per cent.		July 1867
68000	Kapunda Mining Co., Austra†‡	1 0 0	⅜	¼ ⅜	0 0 10	0 0 10	Nov. 1867
15000	Linares, t, Spain*†	3 0 0	—	2¼	11 11 8	0 3 4	Mar. 1868
50000	Panulcillo, c, Chili*†	3 0 0	2		10 per cent.		Yearly.
6000	Peel River Land and Mineral*†	100 0 0	—		—	—	
100000	Pontgibaud, s-l, France†	20 0 0	—		4 14 3	0 11 0	June 1867
10000	Port Phillip, g, Clunes†	1 0 0	1½	1½ 1⅝	1 0 0	0 1 6	Jan. 1868
20000	Scottish Australian Min. Co.†	1 0 0	1⅛	1 1⅛	7½ per cent.		Nov. 1867
11000	St. John del Rey, Brazil*†	15 0 0	21	19½ 20½	81 10 0	4 5 0	Dec. 1867
13500	Vancouver, cl*†‡	6 0 0	3½	3⅜ 3⅝	1 4 6	0 3 6	Feb. 1868
50000	Victoria (London) [25000 £1 pd., 25000 12s. 6d. pd.]				0 9 0	0 1 0	Jan. 1866
40000	West Canada Mining Co.*	1 0 0	—		0 19 6	0 2 6	May 1866

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
50000	Anglo-Argentine, s, Argentine Republic*	1 0 0	—		
100000	Anglo-Brazilian, g*†	0 10 0	—	¾ ⅞	Nov. 1866
12500	Anglo-Italian, g*†	0 10 0	¾	½ ¾	Jan. 1868
20000	Australian United, g	1 0 0	—		Mar. 1868
2464	Burra Burra, c, South Australia‡	5 0 0	36		
25000	Capula, s, Mexico*†	1 14 6	—		May 1868
30000	Chontales, g, s, Nicaragua*†	5 0 0	2⅞	2½ 2¾	Mar. 1868
12000	Cobre Copper Company, c, Cuba†‡*	45 10 0	—		Jan. 1868
10000	Copiapo Mining Company, Chili†‡	16 10 0	—		
10000	Copiapo Smelting, Chili*	10 0 0	—		April 1866
300	Copper Miners' Co. of South Australia* [150 £100 pd., 150 £70 pd.]				Nov. 1866
15000	El Chico Silver Mining and Reduction Company*	5 0 0	—		Nov. 1866
40000	Fortune Copper Mining Co. of Western Australia	2 0 0	—		Fully pd.
50000	Frontino and Bolivia, g, New Granada*†	1 17 6	⅝	10s. 12s.	April 1868
10000	Great Barrier Land, Mining, &c., New Zealand	5 0 0	—		Fully pd.
80000	Great Northern, c, South Australia†	1 11 6	—		Sept. 1862
7927	Lusitanian (Portugal)†‡	3 0 0	—		
83640	Mariquita, g, s, New Granada	1 0 0	—		Feb. 1868
12500	Nerbudda Coal and Iron, India*†	6 0 0	4¾		Dec. 1867
51000	New Quebrada, c, Venezuela*†	3 10 0	—		
15000	Otea, c, New Zealand*	2 0 0	—		Fully pd.
80000	Pestarena United, g, Italy*†	2 15 0	2⅝	2⅜ 2⅝	
10178	Rhenish Consolidated, l [6000 £5 pd., 4178 £2 10s. pd.]	—	—		May 1866
100000	Rossa Grande, g, Brazil*†	0 14 0	¾	13s. 15s.	June 1867
15000	San Pedro del Monte, s, Mexico*	4 0 0	—		Sept. 1866
10000	San Roque, l, Spain	5 0 0	—		Fully pd.
100000	Taquaril, g, Brazil*	0 5 0	—		Oct. 1867
6000	Terreseu, s-l, Isle of Sardinia	2 0 0	—		
43174	United Mexican, s, Mexico†‡	28 5 0	1⅞		
30000	Val Antigoria, g, Italy*	1 2 6	—		
6000	Val Sassam, s, c, l, Italy*†	7 0 0	—		Aug. 1867
45000	Victor Emanuel, c, Italy*	1 0 0	—		Fully pd.
20000	Washoe, g, Nevada†	5 0 0	—		Fully pd.
80000	Worthing, c, South Australia*†	1 0 0	⅜		Fully pd.
75000	Yorke Peninsula, South Australia	1 0 0	—		Fully pd.
45000	Yudanamutana, c, South Australia*†‡	3 0 0	2¼	2 2¼	Fully pd.

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
914	Caradon Consols c, St. Cleer	32 13 6	—		Aug. 1867
1000	Carn Brea, c, t, Illogan‡	28 0 0	19	17 18	May 1867
5000	Carnarvonshire, l, Carnarvon*	4 0 0	—		Fully pd.
3000	Chiverton, l, Perranzabuloe	10 0 0	3	2¾ 3	Feb. 1868
3000	Chiverton Moor, l, Perranzabuloe	6 8 6	6⅛	5⅞ 6⅛	Aug. 1867
2880	Clifford Amalgamated, c, Gwennap‡	33 17 6	5½	5½ 5¾	June 1867
2450	Cook's Kitchen, c, Illogan‡	19 14 9	11¾	11 11½	July 1866
1055	Craddock Moor, c, St. Cleer‡	13 4 0	—		Mar. 1868
12800	Drake Walls, t, Calstock‡	2 5 0	—	⅝ ¾	Dec. 1866
512	East Basset, c, Redruth†‡	34 10 0	—		Mar. 1868
6000	East Carn Brea, c, Redruth‡	3 18 0	1	1 1¼	April 1868
6000	East Grenville, c, Camborne	3 15 6	2	37s. 39s.	Feb. 1868
4000	East Wheal Russell, c, Tavistock†	13 2 6	—	¾ 1	April 1868
6144	Gonamena, c, St. Cleer	7 6 9	—		April 1868
5000	Great North Downs, c, Redruth	6 13 0	4	3¾ 4	Feb. 1867
4800	Great Retallack, s-l, b, Perranzabuloe	2 6 0	2⅜		Jan. 1868
5143	Great South Tolgus, c, Redruth	1 8 0	—	⅜ ⅝	April 1868
1798	Great Wheal Fortune, t, Breage	31 7 4	—		Mar. 1868
1024	Nangiles, t, c, Kea	29 17 0	—		Feb. 1868
400	New Wheal Seton, c, Camborne	60 10 0	—		April 1868
3457	North Downs, c, Redruth	5 8 10	1¼		Jan. 1868
695	North Roskear, c, Camborne	57 19 0	—	11 12	Mar. 1868
5936	North Treskerby, c, St. Agnes	1 9 0	20s.	⅞ 1	Dec. 1860
5610	North Wheal Crofty, c, Illogan†	3 11 3	2¾	2⅜ 2⅝	July 1866
3000	North Wheal Chiverton, l, Perranzabuloe	4 0 0	4½	4 4½	Mar. 1867
5000	Old Westminster, l, Denbigh	2 0 0	—		June 1867
8465	Pedn-an-drea, t, Redruth	6 8 6	—		Nov. 1867
1024	Rose and Chiverton United, l, Newlyn	5 10 0	6⅜		Feb. 1868
6138	South Condurrow, t, c, Camborne	4 0 6	—		Feb. 1868
940	St. Ives Consols, t, St. Ives‡	10 15 0	—	2¾ 3¼	Nov. 1867
920	Stray Park, c, t, Camborne†‡	45 5 8	4	2¼ 2¾	April 1868
6000	Tamar Valley, s-l, Beeralston	0 7 6	—		Feb. 1868
548	Trelyon Consols, t, St. Ives	16 0 0	—		Dec. 1866
6000	West Basset, c, Illogan†‡	1 15 0	—		Mar. 1867
1024	West Caradon, c, St. Cleer‡‡	20 10 0	7½	7 8	Mar. 1868
12800	West Drake Walls, c, Calstock	0 5 0	⅜		Feb. 1868
2582	West Great Work, t, Breage	5 11 0	—		June 1866
6000	West St. Ives, t, c, St. Ives	0 1 0	½	9s. 11s.	Oct. 1865
512	West Wheal Frances, t, Illogan	106 15 0	—	28 30	
5000	West Wheal Kitty, t, St. Agnes	3 2 0	—		April 1868
6000	Wheal Agar, c, Illogan	7 11 0	—		Jan. 1867
512	Wheal Buller, c, Redruth†‡	24 0 0	—	8 10	Jan. 1868
811	Wheal Emily Henrietta, c, Illogan	20 0 0	45	31 33	Jan. 1868
5724	Wheal Grenville, c, Camborne†	10 6 0	42s.	36s. 38s.	Mar. 1868
1040	Wheal Trelawny, s-l, Liskeard†	7 12 0	9	8 8½	Mar. 1868
5000	Wheal Uny, t, c, Redruth	10 14 6	2	39s. 41s.	Oct. 1867

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.
2562	Abraham Cons., t, c, Crowan	1 7 0	—	
4000	Ballacorkish, I. of Man, l, c*	3 10 0	—	
4000	Bedford Consols, c, Tavistock	2 15 0	—	
4000	Bedford United, c, Tavist.*	2 10 8	—	1¼ 1½
1031	Bedol Aur, l, Holywell	1 17 0	—	
1248	Boscaswell, t, c, St. Just	7 6 0	—	
2500	Bosworthen and Penzance	4 0 0	—	
5000	Bottle Hill, t, Plympton	1 14 6	—	
5000	Bryn Gwiog, l, Flint	0 18 0	—	
1200	Bryn Gwyn, l, Mold*‡	9 0 0	—	
1000	Budnick Consols	1 0 0	—	¾
5094	Bwlch Consols, s-l, Cardigan	4 0 0	—	
30000	Caldbeck Fells, l, Cumberld.*	1 15 0	—	
1000	Camborne Consols, c	18 10 0	—	
11000	Cape Cornwall, t, c* [8000 £2 10s. pd., 3000 25s. pd.]			
5000	Capel Banhaglog, l, Mont.	1 10 0	—	
1000	Cardynham China-clay*	3 0 0	—	
6000	Carn Camborne, c, Cambrn.	2 6 0	—	⅜ ½
4005	Cardigan Consols*	5 0 0	—	
600	Cardiganshire, l*	17 10 0	—	
20000	Carysfort [3200 £2½ pd., 16800 £1½ pd.]			
2500	Central Minera, l, Wrexham*	3 17 6	—	
16000	Central Snailbeach l*	1 0 0	1⅛	
3000	Chiverton Valley, l, Perranz.	2 0 0	—	4½ 5
2048	Colquite & Callington Un., c.	0 15 0	—	
256	Condurrow, c, t, Camborne‡	76 10 0	—	
50000	Connorree, c, sul, Wicklow*	1 0 0	—	
983	Copper Hill, c, Redruth‡	12 10 0	—	
12000	Crelake, c, Tavistock	3 12 0	—	
6000	Cuddra, t, St. Austell	5 5 0	—	
25000	Dundalk, Ireland, l*	0 15 0	—	
740	Eaglebrook, l, Talybont*	19 15 0	—	
1000	East Basset and Grylls, t	3 5 0	—	
6000	East Bottle Hill, t	0 11 0	—	
4000	East Chiverton, l, Perranz.	2 19 3	—	
4000	E. Gunnislake & S. Bed. c.	10 15 0	1¼	1 1¼
6000	East Laxey, l, Isle of Man	2 15 0	—	
6000	East Neptune, c, Marazion	—	—	
5000	E. Rosewarne, c, t, Gwinear	2 17 0	—	
6000	East Snaefell, l, I. of Man*	2 10 0	1⅛	
5610	East Seton, c, Camborne	0 13 6	—	
1190	E. Wh. Agar, c, St. Cleer	12 17 0	—	
5000	E. Wh. Rose Con., l, Per.*	2 5 0	—	
6000	Ebury Lead Min. Co., Flint*	1 15 0	—	
6000	Fortescue Cons., c, Tavistock	0 12 6	—	
940	Fowey Con., c, Tywardreath‡	5 4 6	—	
1026	Garden, c, Morvah	6 0 3	—	
6000	Gen. Min. Co. for Ireland, c.	5 10 0	—	
10000	Glan Alun, l, Mold	0 6 0	—	7s. 8s.
40000	Glasgow Caradon c* [30000 £1 pd., 10000 15. pd.]			
5700	Goginan, Cardigan, l	12 10 0	—	
6000	Gothic, s-l, Cardigan*	2 10 0	—	
486	Grambler & St. Aubyn, c†‡	73 0 0	—	
10000	Great Cwmsymlog, s-l*	1 15 0	—	
4096	Great Caradon, c, St. Ive	3 19 0	—	
3000	Gt. Chiverton, s-l, Perranz.*	3 10 0	—	
5000	Great Mona, l, Isle of Man*	4 0 0	—	
12500	Gt. No. Laxey (Isle of Man)*	0 15 0	—	
1000	Great N. Tolgus, c, Illogan	10 0 0	—	
15000	Great Rhosesmor, l	5 0 0	—	
6000	Gt. S. Chiverton, s-l, Perranz	1 13 0	—	¾ ⅞
3313	Gt. Wh. Baddern, t, Devoran	7 17 6	—	
119	Great Work, t, Germoe	100 0 0	—	
10240	Gunnislake (Clitters'), t, c.	4 19 0	—	
6068	Gwydyr Park, l, Llanrwst	1 14 6	—	
6400	Harwood, l, Durham*	0 7 6	—	
1000	Hematite Iron Company*	5 0 0	—	
2500	Laxey Neath Smelting Co.*	3 10 0	—	
1019	Leeds and St. Aubyn, t, c	19 13 4	—	
151	Levant, c, t, St. Just	10 8 1	—	
2325	Lonsdale Iron Co. [650 £5 pd., 1675 £3 pd.]			
5120	Lovell Consols, Wendron, t.	0 4 0	—	
6000	Maudlin, c, Lostwithiel	4 7 0	—	
6000	Mid-Wales, s-l,*	2 4 0	—	
1000	Montgomeryshire, l, b*	2 0 0	—	
640	Mount Pleasant, l, Mold	4 0 0	—	
12800	Nether Hearth* [6400 £1 pd., 6400 2s. pd.]			
6000	New Birch Tor & Vitifer, t‡	1 13 6	--	
1500	New Chiverton, l, Perranz.	0 9 6	—	
6000	New Clifford, c., Gwennap*	2 15 0	—	
24000	New Cornish [12000 £1 pd., 12000 15s. pd.]			
6400	N. Crow Hill, l, St. Stephen.	3 5 6	—	
6514	New E. Russell, c, Tavistock	0 12 6	—	
20000	New Gt. Cons., c, Tavistock*	0 17 6	—	
3000	New Huntingdon, t, Devon.	0 1 0	—	
6400	New Pembroke, St. Blaz. t, c	1 9 0	—	
6000	New Prosper, t, c, St. Hilary	0 10 0	—	
3680	New Treleigh		—	
667	New Trevenen, t, Wendron.	12 1 6	—	
4096	New Wh. Lovell, t, Wendron	1 14 0	—	⅞ 1⅛
2000	N. Wh. Towan, c, t, Wendron	1 10 0	—	
16000	N. Devon, s-l, Combmartin	0 19 0	—	
5000	No. Dolcoath, c, Camborne	4 3 0	—	
1361	No. Grambler, c, Redruth	8 17 3	—	
6000	North Jane, t, s-l, Kenwyn	3 1 6	—	
2000	North Levant, t, c, St. Just	10 12 0	—	9½ 10
4000	No. Phœnix, c, Linkinhorne	4 11 0	—	
3933	North Pool, c, Illogan	5 16 0	—	
1024	No. Retallack, c, Perrazabuloe	2 0 0	—	
1935	No. Shepherds, l, Newlyn*	6 10 0	—	
6000	North Wheal Basset, c, t†	5 0 0	—	
6144	N.W. Robert, c, Smp. Spiney	4 8 11	—	
12288	Okel Tor, c, Calstock	2 7 4	¾	
8000	Old Gunnislake, c, Calstock	2 15 0	—	
6400	Par Consols, c, St. Blazey†‡	2 14 6	—	
5000	Pendeen Consols, c, St. Just	6 15 0	--	
4000	Penhale United, s-l, Perran.*	0 15 0	—	
2720	Penhale Wh. Vor, t, c, Breage	5 2 6	—	
5000	Penhalls, t, St. Agnes	3 0 0	—	
1772	Polberro, t, St. Agnes	15 0 0	—	
12000	Redmoor, c, t, Callington	1 15 6	—	
6000	Reinnie Laxey, l, I. of Man*	4 10 0	—	
3000	Rhydtalog, s-l, Cardigan	0 5 0	—	
6000	Roaring Water, c*	2 15 0	—	
2000	Rosecliff and Tolcarne, l*	9 10 0	—	
3973	Rosewarne Cons., c, Gwinear	7 2 6	—	
5915	Rosewall Hill & Ransom, c.	3 0 0	—	
10000	Royalton, t, St. Columb	1 1 0	—	
20500	Snaefell, l, Isle of Man*	1 0 0	—	
12000	Sortridge Cons., c, Tavistk.†	1 18 6	—	
512	South Basset, c, Gwennap	28 10 0	—	
3000	So. Chiverton, s, l, Perranz.	6 2 6	—	
6000	S. Dolcoath & Carnarth. Con.	2 16 6	—	
6000	So. Fowey, c, Tywardreath	0 10 0	—	
3395	So. Herodsfoot, l, Liskeard	4 4 0	½	
30210	South of Scotland, c*	1 0 0	—	
2739	South Trevenna, c, t.	2 10 0	—	
937	So. Wh. Crofty, c, Illogan	24 10 10	—	
6000	South Wheal Grenville, t, c.	1 3 0	—	
400	So. Wh. Seton, c, Camborne	81 3 0	—	
236	Spearne Consols, t, St. Just	4 4 4	—	
242	Spearne Moor, t, St. Just	6 2 0	—	
673	St. Ives Wh. Allen, t, St. Ives	18 18 7	—	
8771	St. Just Amalg., t,* [6000 £3 10s. pd., 2771 £2 5s. pd.]			
300	Steeple Aston Iron Ore Co.	7 0 0	10¾	
7000	Stiperstones, l, Salop*	5 10 0	—	
3500	Tin Hill, t, St. Austell	1 12 0	—	
501	Tresavean and Trethurrup	16 11 0	—	
4440	Trevenen & Tremenheere	7 11 0	—	
4096	Trewetha, s-l, Menheniot	7 17 0	1¼	
1943	Treworlis, t, Wendron	11 15 4	—	
4200	Vigra and Clogau, c, Dolg.*‡	5 10 0	—	
1319	West Cwm Erfin, l* [319 £4 paid]		—	
256	West Damsel, c, Gwennap	38 10 0	—	
12000	W. Maria & Fortes., c, Lam.	3 11 6	—	
12800	West Prince of Wales, c	0 10 0	½	9s. 11s.
1000	West Rose Down, c, Linking.	20 17 6	—	
512	West Tolgus, c, Redruth	58 10 0	26	30 35
4096	W. Wh. Tremayne, c, St. Erth	0 6 0	—	
741	Wheal Basset and Grylls, t.	7 18 6	—	
6000	Wheal Crebor, c, Tavistock	2 6 6	—	
4000	Wh. Emma, c, Buckfastleigh	3 19 0	—	
6000	Wheal Emily, s, Callington	0 1 0	—	
6000	Wheal Ida, s-l, St. Ive	1 5 6	—	
1024	Wh. Kitty, t, Uny Lelant†	3 10 6	—	
896	Wh. Margaret, t, Uny Le.‡	13 17 6	6	
728	Wheal Margery, St. Ives, t, c	26 14 0	—	
6000	Wheal Mary Florence, c*	2 4 0	—	
1000	Wh. Mary Hutchins, c, Plymp.	2 0 6	—	
2000	Wheal Rose, c, Scorrier	0 10 0	—	
6000	Wheal Sparnon, c, Redruth	3 12 0	—	
1920	Wh. Trannack, c, Sithney	1 13 3	—	
1200	Wheal Trevenna, t, c*	10 0 0	—	

MISCELLANEOUS.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.
60000	Anglo-American Telegrh.*†	10 0 0	—	23 23¼
10000	Arklow Chemical Works, l	1 0 0	—	
30000	Central American Assoc.*†	1 10 0	1⅛	
80000	Ebbw Vale Iron Co.*†	27 0 0	—	
148525	London Gen. Omnibus*†	4 0 0	2	

b, blende; cl, coal; c, copper; g, gold; l, lead; s, silver; sl., slate; s-l, silver-lead; t, tin; z, zinc.

** Companies marked thus * have been incorporated with Limited Liability; those marked † have been admitted on the Stock Exchange, those marked thus ‡ have paid Dividends.

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